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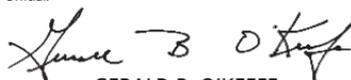
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General, United States Army Chief of Staff

Official:



GERALD B. O'KEEFE

Administrative Assistant to the Secretary of the Army

1501307

Issue 749

PS

April
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THE PREVENTIVE MAINTENANCE MONTHLY

TB 43-PS-749

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ANOTHER PAIR
OF DEAD
BATTERIES!
BETTER
ORDER SOME
MORE.

MAYBE WE SHOULD'A TAKEN
BETTER CARE OF 'EM.

THOSE BATTERIES HAVE A LONG
LEAD TIME, SO IT'S GONNA HURT
OUR *READINESS RATE!*

Are *you* being hurt by
readiness drivers?
See **Page 1** For more info.

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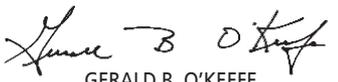
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You're in the Readiness Driver's Seat

PT MEANS GETTING UP DURING DARK, EARLY MORNING HOURS FOR LONG, HARD WORKOUTS. IT COULD BE RAINING, ICY COLD OR BLISTERING HOT, BUT YOU'RE STILL THERE, DAY AFTER DAY. THAT'S BECAUSE YOU UNDERSTAND IT'S A VITAL WAY TO ENSURE BOTH MIND AND BODY ARE READY FOR THE RIGORS AHEAD.

THE SAME IS TRUE OF YOUR EQUIPMENT. IT MUST BE MAINTAINED, EXERCISED, AND CONSTANTLY FINE-TUNED SO THAT IT'S AS READY AS YOU ARE WHEN NEEDED.

READINESS RATES TELL THE ARMY HOW WELL ITS EQUIPMENT IS BEING MAINTAINED. A HIGH READINESS RATE MEANS EQUIPMENT IS BATTLE READY. A LOW RATE MEANS EQUIPMENT IS DEADLINED AND WAITING FOR PARTS TO BRING IT BACK UP TO SPEED. THE AVAILABILITY OF THOSE PARTS PLAYS A HUGE FACTOR IN THE READINESS OF EQUIPMENT.

UNITS THAT TAKE GOOD CARE OF THEIR EQUIPMENT HAVE TO ORDER FEWER REPLACEMENT PARTS. THEIR EQUIPMENT IS ABLE TO WORK HARDER AND LONGER BECAUSE SMALL PROBLEMS ARE FIXED BEFORE THEY CAN BECOME BIG PROBLEMS. THAT'S THE HEART OF PREVENTIVE MAINTENANCE (PM).

IF EQUIPMENT ISN'T CARED FOR PROPERLY, PARTS BREAK DOWN. IN SOME CASES, LARGE AMOUNTS OF THOSE PARTS HAVE TO BE ORDERED TO KEEP EQUIPMENT FUNCTIONING. WHEN DEMAND GOES TOO HIGH, THE SUPPLY SYSTEM IS UNABLE TO KEEP UP AND LONG LEAD TIMES RESULT. **READINESS RATES TAKE A NOSEDIVE.**

FOR THAT REASON, THESE PARTS ARE KNOWN AS READINESS DRIVERS. IN THIS AND SUBSEQUENT ISSUES OF PS, YOU'LL FIND ARTICLES THAT HIGHLIGHT SPECIFIC READINESS DRIVERS. THE NSNs FOR THESE READINESS DRIVERS WILL BE HIGHLIGHTED, SO TAKE THEM TO HEART.

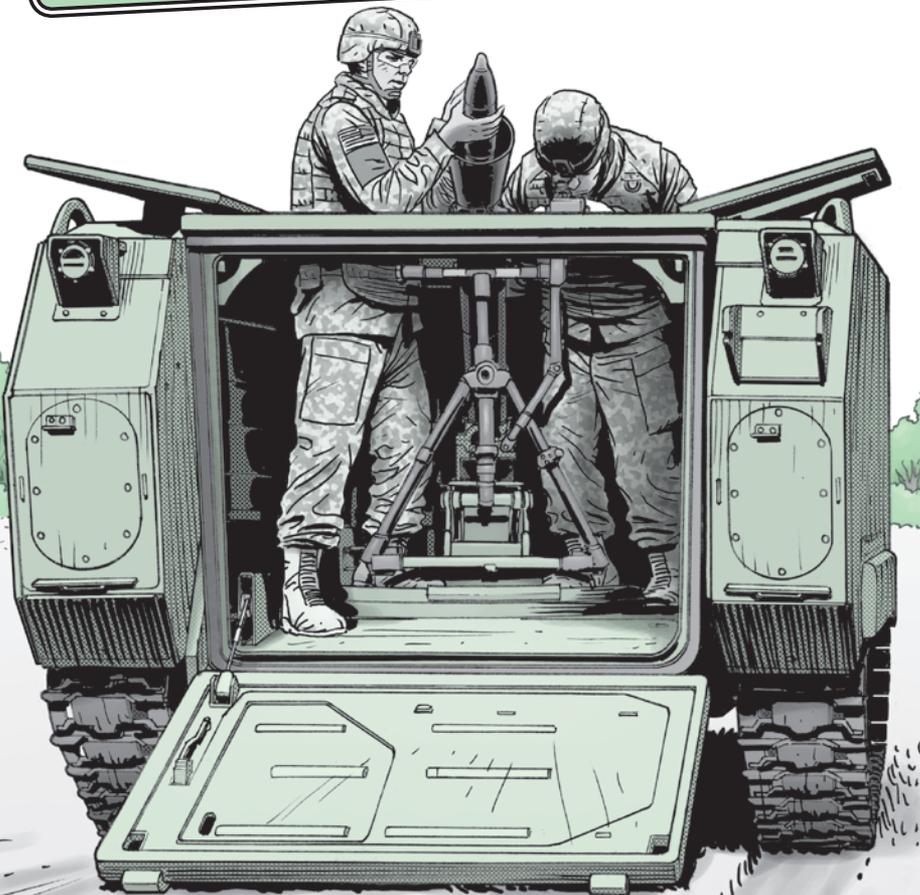
BY PRACTICING GOOD PM, THOSE PARTS CAN HELP DRIVE READINESS RATES UP INSTEAD OF DOWN.



PS COMBAT VEHICLES

Stay on track with these stories about:

- Stryker coolant hoses
- M88A1 boom pivot pin lubing
- M88-series winch cable kinking
- M113-series final drive check
- M119A2 howitzer PM tips



PS749

2

APR 15

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Mechanics, inspect the coolant supply hose, [NSN 4720-01-459-8689](#), for the personnel and engine coolant circulating heater (PECCH) in all of your unit's Strykers right away.

Normal wear, excessive heat and acidic buildup in the coolant can cause the hose to rupture. If that happens, anyone sitting at the commander's station could be burned with hot coolant. Also, loss of coolant can cause the engine to overheat.

After the initial inspection, check the hose every six months for signs of leaking or damage and replace it if necessary. At a minimum, replace the hose every 12 months. The semi-annual inspection is being added to each Stryker's -13&P IETM. That's also where you'll find the procedures for replacing the hose.

TACOM ground precautionary action message 14-021 has hotlinks to the updated PMCS tables. You'll find the message on the TACOM-Unique Logistics Support Applications (TULSA) website at:

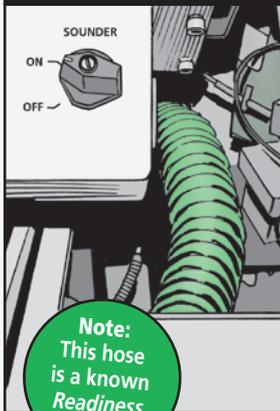
<https://tulsa.tacom.army.mil/Safety/message.cfm?id=GPA14-021.html>

You'll need your CAC and first-time users must first request access.

Questions? Contact TACOM's Richard Morgan at DSN 786-6710, (586) 532-6710 or email:

richard.d.morgan.civ@mail.mil

Inspect hose every six months and replace at least annually



PS 749

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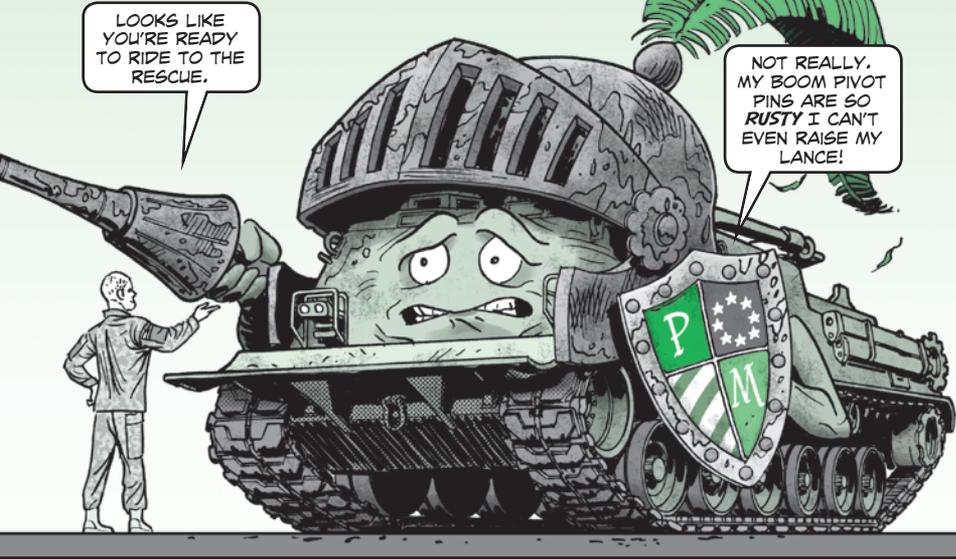
APR 15

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Don't Neglect BOOM PIVOT PINS

LOOKS LIKE YOU'RE READY TO RIDE TO THE RESCUE.

NOT REALLY. MY BOOM PIVOT PINS ARE SO RUSTY I CAN'T EVEN RAISE MY LANCE!



ALSO, ORDER A TARP TO COVER THE TOP OF YOUR VEHICLE, ESPECIALLY THE BOOM TUBES.

RAINWATER FALLS STRAIGHT DOWN THE BOOM TUBES AND FILLS THE HULL.

THAT MOISTURE DOESN'T HELP THE RUST SITUATION FOR THE BOOM PIVOT PINS, EITHER!

USE NSN 2540-01-330-8062 TO ORDER A 12X17-FT TAN TARP.

NSN 2540-00-653-7589 BRINGS THE OLIVE DRAB VERSION.

Tarp keeps rainwater out of boom tubes

EVEN IF YOU DRAIN THE HULL REGULARLY, SOME OF THAT WATER IS GOING TO EVAPORATE AND CONDENSE RIGHT ONTO THE MAIN WINCH AND THE HOIST WINCH DRUM. THAT GIVES RUST A FOOTHOLD IN THOSE AREAS, SO USING A TARP IS VITAL TO KEEPING MOISTURE OUT.

MECHANICS, YOUR M88A1 RECOVERY VEHICLE IS THE KNIGHT IN SHINING ARMOR ON THE BATTLEFIELD, RUSHING IN TO TOW DISABLED VEHICLES TO SAFETY.

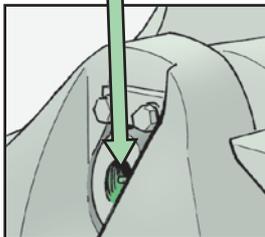
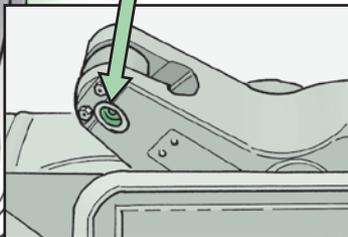
BUT YOUR M88A1 WILL BE A RUSTY KNIGHT IF YOU DON'T LUBE THE BOOM FOOT PIVOT PINS AND THE BOOM PIVOT PINS.

UNLUBED PINS EVENTUALLY RUST IN PLACE. YOU CAN TELL THAT'S HAPPENED WHEN THE BOOM PIVOT PIN ROTATES AS YOU RAISE OR LOWER THE BOOM.

BE SURE TO LUBE YOUR M88A1 RECOVERY VEHICLE'S BOOM FOOT PIVOT PINS AND BOOM PIVOT PINS QUARTERLY WITH GAA, JUST LIKE IT SAYS IN TM 9-2350-256-20-1.

Don't forget to lube boom foot pivot pins...

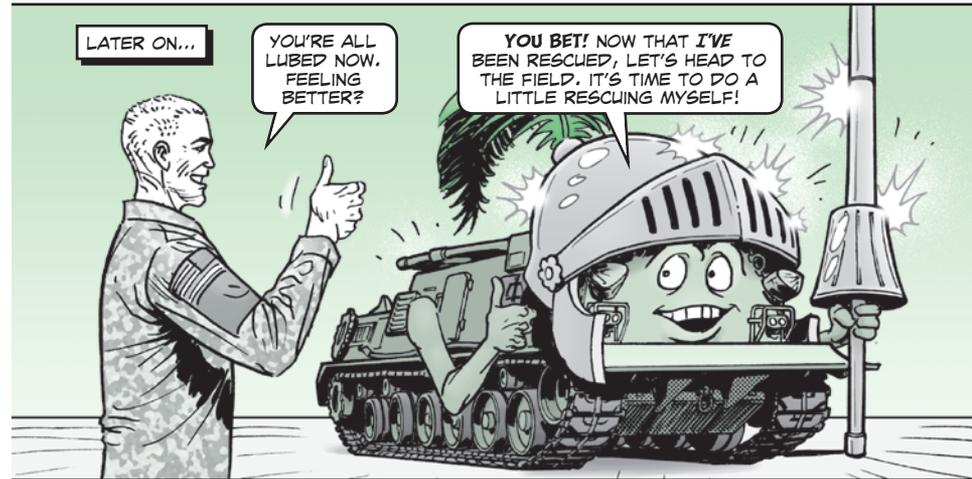
...and boom pivot pins



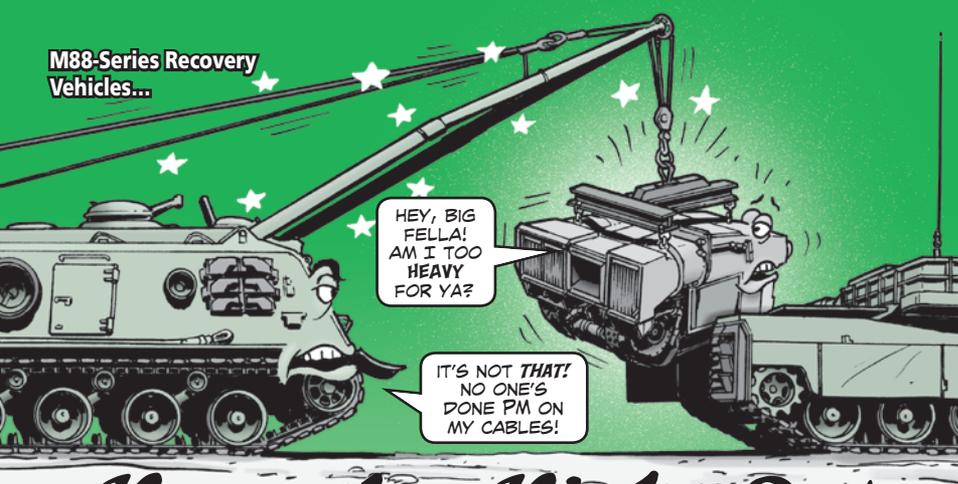
LATER ON...

YOU'RE ALL LUBED NOW. FEELING BETTER?

YOU BET! NOW THAT I'VE BEEN RESCUED, LET'S HEAD TO THE FIELD. IT'S TIME TO DO A LITTLE RESCUING MYSELF!



M88-Series Recovery Vehicles...



HEY, BIG FELLA! AM I TOO HEAVY FOR YA?

IT'S NOT *THAT!* NO ONE'S DONE PM ON MY CABLES!

Keep the Kinks Out

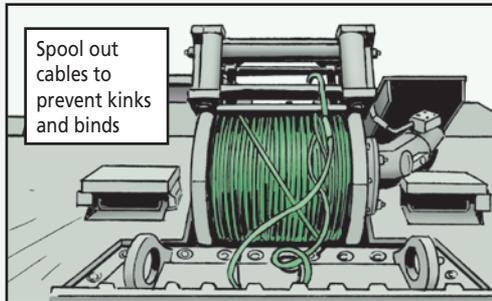
Crewmen, don't let your vehicle's winch cables kink up your next recovery operation. Taking extra care during AFTER PMCS will make sure those winch cables are ready to do their job.

Spool out the cables on the main and hoist winches slowly. Just don't spool them out too fast or the cables could unspool completely.

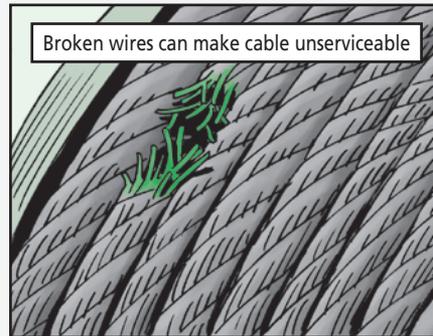
While you're at it, make sure the hydraulic controls for the boom, main winch, hoist winch and spade are all working like they're supposed to.

If the winches were used, be sure to check the cables for damage. Cables are unserviceable if there are three broken wires per strand or six broken wires per lay. Clean and lube good cables like it says in the -10 TM.

You'll find everything you need to know about keeping the kinks out of your recovery operations by following the AFTER PMCS procedures in TM 9-2350-256-10 for the A1 and TM 9-2350-292-10 for the A2.

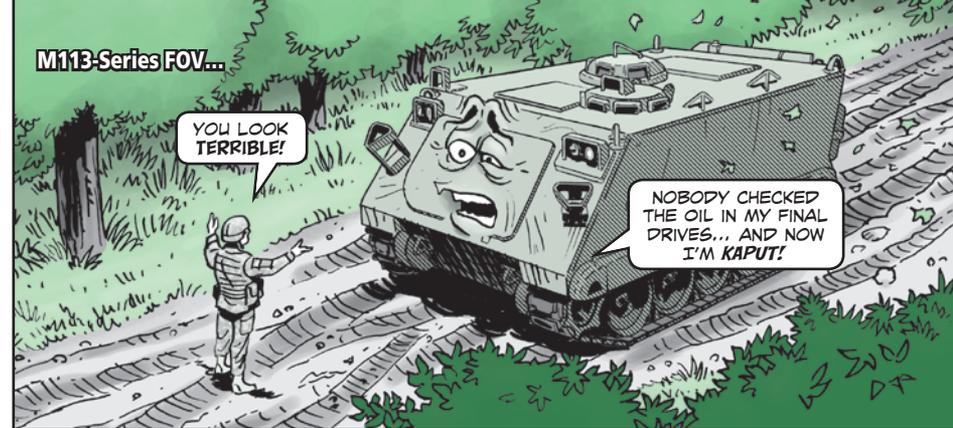


Spool out cables to prevent kinks and binds



Broken wires can make cable unserviceable

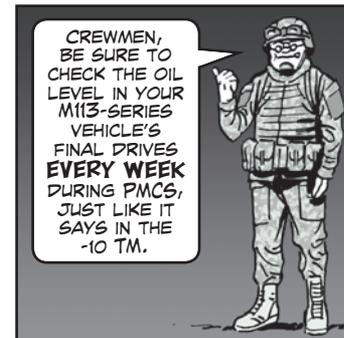
M113-Series FOV...



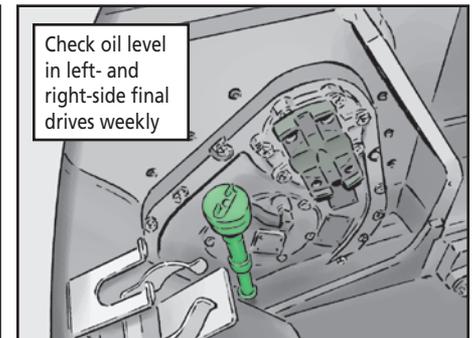
YOU LOOK TERRIBLE!

NOBODY CHECKED THE OIL IN MY FINAL DRIVES... AND NOW I'M KAPUT!

CHECK FINAL DRIVE OIL LEVEL WEEKLY



CREWMEN, BE SURE TO CHECK THE OIL LEVEL IN YOUR M113-SERIES VEHICLE'S FINAL DRIVES EVERY WEEK DURING PMCS, JUST LIKE IT SAYS IN THE -10 TM.



Check oil level in left- and right-side final drives weekly

LOW OIL LEVELS CAN **DAMAGE** THE FINAL DRIVES AND KNOCK YOUR VEHICLE OUT OF ACTION IN A HURRY.



ADD FULL

1 PINT BETWEEN MARKS

CHECK **BOTH** GAGE RODS EACH WEEK AND MAKE SURE THE OIL LEVEL IS BETWEEN THE ADD AND FULL MARKS.



WHILE YOU'RE AT IT, CHECK THE OIL FOR **CONTAMINATION**. IF THE OIL APPEARS MILKY, TELL YOUR MECHANIC.

THAT MEANS **WATER** HAS GOTTEN INSIDE AND THE FINAL DRIVES WILL HAVE TO BE **DRAINED AND REFILLED**.

KA BOOOO MI!

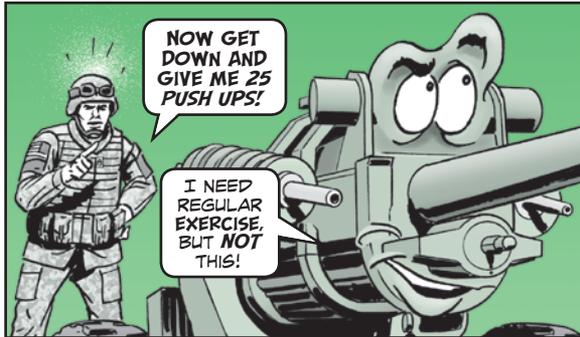


PM HAS REALLY GOT THE BIG GUY FIRING!

PM COMES THROUGH AGAIN

IF YOU WANT YOUR M119A2 HOWITZER BOOMING OUT ROUNDS LIKE IT SHOULD, LOAD UP ON THESE PM TIPS...

Give it regular exercise and lubing. If you park and forget your howitzer, expect big problems when you're finally ready to fire. At least monthly, take it through its full range of motion and give it a thorough lubing like it says in TM 9-1015-252-10. Two hours will get the job done and save you big dollars and repairs later.



NOW GET DOWN AND GIVE ME 25 PUSH UPS!

I NEED REGULAR EXERCISE, BUT NOT THIS!

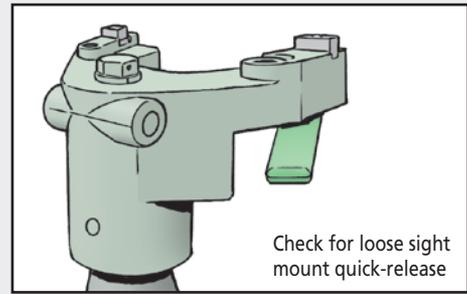
Don't forget the recoil system. If your howitzer hasn't been fired or exercised in the last 90 days, give it a good workout. Exercise the recoil like it says in WP 0151 of TM 9-1015-252-24 (Nov 12). This will go a long way toward keeping your buffer and recuperator mission capable and its internal seals lubricated and moving.

Pay special attention to the muzzle end of the cannon tube during cleaning. Cracks caused by pitting are showing up around the muzzle end because units aren't thoroughly cleaning there. Propellant residue and broken-down grease form an acidic solution that eats away the metal if not cleaned off. Take off the muzzle brake and clean with rags and CLP. A scouring pad may be necessary for tough spots. Get one with NSN 7920-00-753-5242. Clean the bore following the instructions in the -10. Do that after every firing.



Clean muzzle area to prevent cracks and pitting

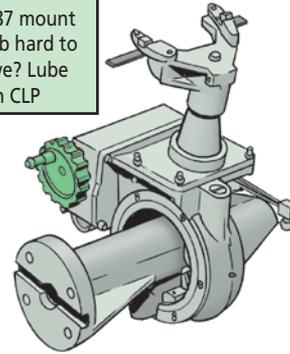
Check for a loose sight mount quick-release. If the quick-release is loose, the mount won't sit properly and vibration can wallow out the mount. Your repairman needs to check the quick-release's spring washer for a .040-in gap. If the gap's wider, replace the spring washer following the instructions in TM 9-1240-404-24&P. It's a good idea to replace the spring washer annually.



Check for loose sight mount quick-release

Make sure the M187 telescope mount's elevation knob moves freely. It tends to freeze if ignored. Lube it with CLP.

M187 mount knob hard to move? Lube with CLP



Elevate the muzzle to 1244 mils before parking the M119A2.

This will reduce the compression on the equilibrator springs. If the muzzle is left at a lower elevation, too much pressure is put on the equilibrator springs and they will wear out sooner.

Elevate muzzle to 1244 mils for parking



Don't over-torque the clamping nuts for the direct fire mount. Once you hit 50 in-lb, stop. Torquing more than that breaks the mount's locking band.



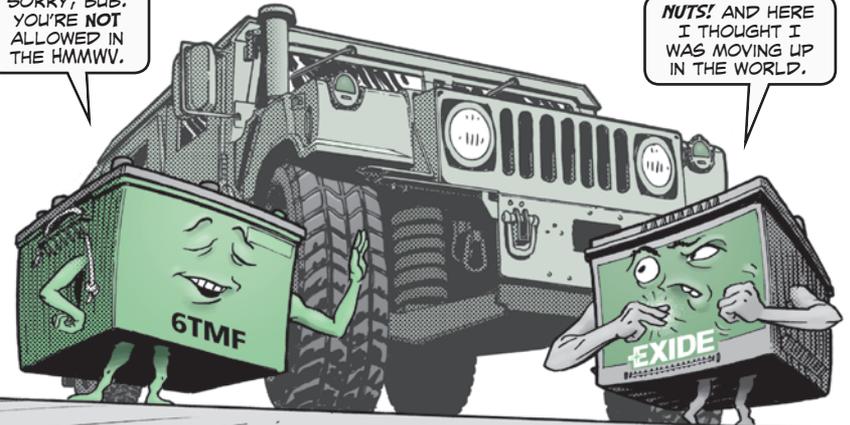
THAT'S IT. NICE AND SLOW!

Drive away with these articles on:

- HMMWV battery holdowns, special equipment shutdown, and tire and wheel assemblies
- FMTV spare tire carrier and trailer light circuit breakers
- M978-series HEMTT tanker fuel hoses

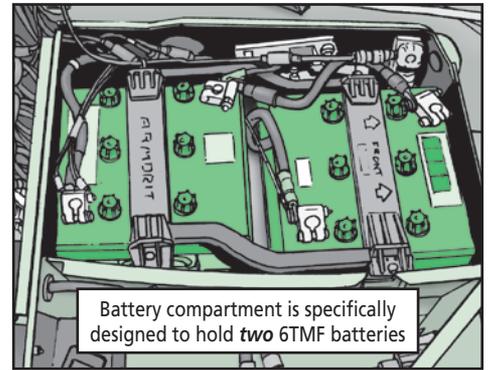
SORRY, BUB. YOU'RE NOT ALLOWED IN THE HMMWV.

NUTS! AND HERE I THOUGHT I WAS MOVING UP IN THE WORLD.



Dear Half-Mast,
 We just got in some of the new Exide batteries, NSN 6140-01-485-1472, to install in our M1097 HMMWV. Problem is, these batteries are a little larger than the old 6TMF battery, so the holddown brackets won't fit. Is there an NSN for larger holddowns?
 SFC J.S.W.

Dear Sergeant,
 Unfortunately, no. Turns out Exide batteries aren't approved for use in HMMWVs. Since they haven't been tested, there's always a chance that using Exide batteries could negatively affect some of the vehicle's on-board systems.
 Your best bet is to continue using the 6TMF batteries, NSN 6140-01-446-9498. The HMMWV's battery compartment was specifically designed to hold two of those batteries. If other batteries are approved in the future, we'll let you know about it in PS. By the way, those 6TMF batteries are known readiness drivers.
 Half-Mast



Battery compartment is specifically designed to hold two 6TMF batteries

LEAVING THE SWITCHES ON **DRAINS** THE BATTERIES. BY THE NEXT DAY, THEY'LL BE TOO **WEAK** TO START YOUR TRUCK.

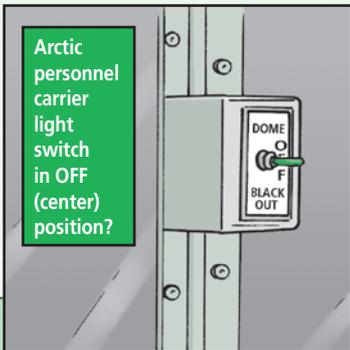
NOW PICTURE YOURSELF OUT THERE UNTANGLING THE SLAVE CABLES AS YOU WORK TO GET YOUR VEHICLE RUNNING AGAIN!

NOOOOOO!!



ONE SWITCH THAT OFTEN GETS LEFT ON IS THE ONE FOR THE REAR OVERHEAD LIGHTS IN THE ARCTIC PERSONNEL CARRIER. IT HAS THREE POSITIONS, BUT ONLY ONE—THE CENTER POSITION—TURNS THE LIGHTS OUT WHEN THE REAR DOOR IS CLOSED.

Arctic personnel carrier light switch in OFF (center) position?



SO MAKE **ALL** OF THOSE SWITCHES YOUR **LAST CHECK** BEFORE BUTTONING UP YOUR HMMWV FOR THE NIGHT.

AND LEAVE MOM ALONE. SHE'S PUTTING FOR A BIRDIE ON THE BACK NINE!

LEMME GUESS, DEAR. YOU **FORGOT** TO TURN OFF THE SPECIAL EQUIPMENT AGAIN, DIDN'T YOU?



HMMWVs...

PICK THE RIGHT TIRE AND WHEEL ASSEMBLY

HEY, WE JUST GOT IN SOME NEW 24-BOLT TIRE AND WHEEL ASSEMBLIES.

YOU'RE FINALLY GONNA GET THAT NEW FRONT TIRE YOU'VE BEEN NEEDING.

HMMM... DID YOU CHECK THE TIRES? I'VE GOT **GOODYEAR MT TIRES**, SO MY REPLACEMENT WILL HAVE TO BE THE **SAME**.



Dear Half-Mast,

In my unit, we're seeing a lot of the new 24-bolt tire and wheel assemblies installed on our HMMWVs. But there are still quite a few of the 12-bolt assemblies out there, too.

Is it OK to mix 12- and 24-bolt assemblies on the same vehicle?

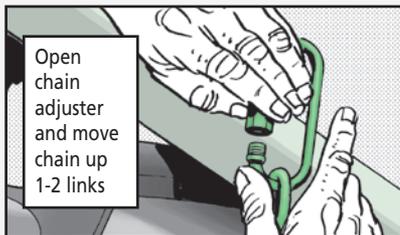
SSG E.J.F.



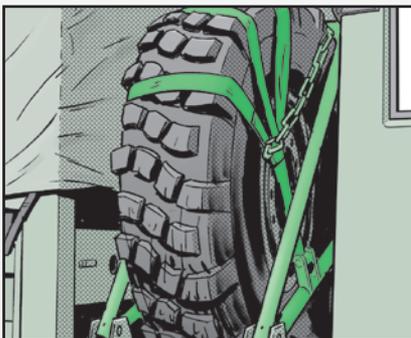
TAKE THE SLACK OUT OF TIRE MOVEMENT WITH A **SIMPLE ADJUSTMENT** TO THE CARRIER'S CHAIN.

OPEN THE CHAIN ADJUSTER AND MOVE THE CHAIN UP A LINK OR TWO. YOU'LL NEED TO MAKE THIS ADJUSTMENT TO **BOTH** THE TOP AND BOTTOM CHAINS.

Open chain adjuster and move chain up 1-2 links



WITH THE SPARE TIRE SNUG IN ITS CARRIER, YOU WON'T HAVE TO WORRY ABOUT SNAGGING THE STORAGE BOX THE NEXT TIME YOU NEED TO CHANGE A FLAT.



JUST REMEMBER THAT THE CARRIER'S CHAIN WILL NEED TO BE TIGHTENED A LITTLE MORE WHEN PUTTING A **FLAT TIRE** IN THE CARRIER.

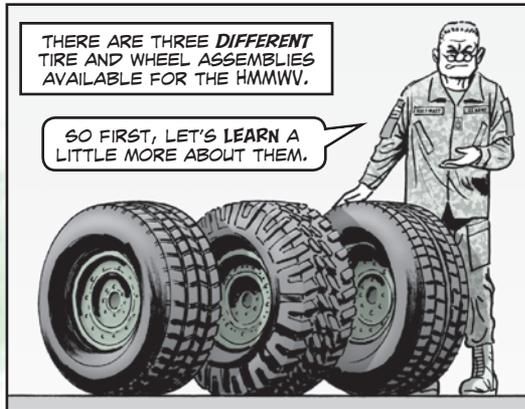
PS END

THIS MAY GET A LITTLE **COMPLICATED**, SERGEANT, SO BEAR WITH ME.



THERE ARE THREE **DIFFERENT** TIRE AND WHEEL ASSEMBLIES AVAILABLE FOR THE HMMWV.

SO FIRST, LET'S **LEARN** A LITTLE MORE ABOUT THEM.

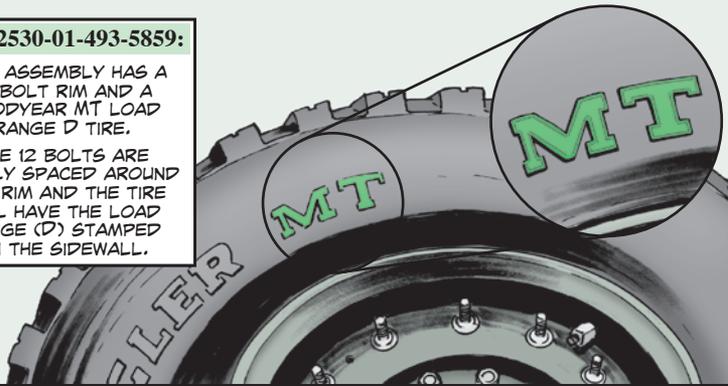


PS MORE

NSN 2530-01-493-5859:

THIS ASSEMBLY HAS A 12-BOLT RIM AND A GOODYEAR MT LOAD RANGE D TIRE.

THE 12 BOLTS ARE EVENLY SPACED AROUND THE RIM AND THE TIRE WILL HAVE THE LOAD RANGE (D) STAMPED ON THE SIDEWALL.



NSN 2530-01-558-2138:

THIS ASSEMBLY CAN COME WITH EITHER A 12- OR 24-BOLT RIM AND EITHER A GOODRICH BAJA OR GOODYEAR MT/R LOAD RANGE D TIRE.

THE BOLTS ON THESE ASSEMBLIES ARE EVENLY SPACED AROUND THE RIM AND BOTH TIRES WILL HAVE THE LOAD RANGE (D) STAMPED ON THE SIDEWALL.

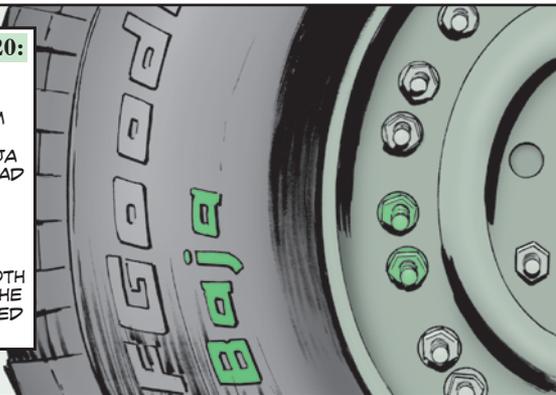


ANY OF THE ASSEMBLIES UNDER THIS NSN (12- OR 24-BOLT, GOODRICH BAJA OR GOODYEAR MT/R) CAN BE MIXED ON THE SAME VEHICLE WITH **NO PROBLEMS**.

NSN 2530-01-563-8620:

THIS ASSEMBLY COMES WITH EITHER A 20- OR 24-BOLT RIM AND EITHER A GOODRICH BAJA OR GOODYEAR MT/R LOAD RANGE E TIRE.

THE BOLTS ON THESE ASSEMBLIES ARE ARRANGED IN TANDEM AROUND THE RIM AND BOTH TIRE TYPES WILL HAVE THE LOAD RANGE (E) STAMPED ON THE SIDEWALL.



Mixing Assemblies

NOW HERE'S WHERE IT GETS COMPLICATED!

YOU **CANNOT** MIX ONE ASSEMBLY NSN WITH ANOTHER ASSEMBLY NSN.

IN OTHER WORDS, IF YOUR VEHICLE IS EQUIPPED WITH NSN 2530-01-493-5859, **ANY** REPLACEMENT ASSEMBLY MUST ALSO BE THAT NSN.

THIS RULE HOLDS TRUE FOR THE **OTHER** TWO ASSEMBLIES AS WELL.

MISTAKE #1

BOTH THE -5859 ASSEMBLY AND THE 12-BOLT -2138 ASSEMBLY LOOK VERY **SIMILAR**. BOTH HAVE EVENLY SPACED 12-BOLT RIMS AND BOTH HAVE LOAD RANGE D TIRES.

SOLUTION #1

YOU CAN TELL THESE TWO ASSEMBLIES APART BY LOOKING AT THE MANUFACTURER'S NAME AND MODEL STAMPED ON THE TIRE'S SIDEWALL. THE -5859 ASSEMBLY HAS THE GOODYEAR MT TIRE AND THE -2138 ASSEMBLY COMES WITH EITHER THE GOODRICH BAJA OR GOODYEAR MT/R TIRE.

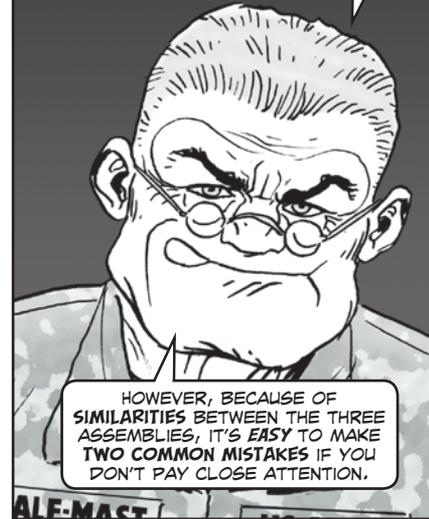
MISTAKE #2

IT'S ALSO EASY TO MIX UP THE 24-BOLT -2138 ASSEMBLY WITH THE 24-BOLT -8620 ASSEMBLY, SINCE BOTH COME WITH EITHER A GOODRICH BAJA OR GOODYEAR MT/R TIRE.

SOLUTION #2

THERE ARE **TWO** WAYS TO TELL THE TWO ASSEMBLIES APART. **FIRST**, LOOK AT THE BOLT SPACING. THE BOLTS ON THE -2138 ASSEMBLY ARE EVENLY SPACED AROUND THE RIM. THE BOLTS ON THE -8620 ASSEMBLY ARE ARRANGED IN TANDEM AROUND THE RIM. **SECOND**, LOOK AT THE LOAD RANGE STAMPED ON THE TIRE'S SIDEWALL. THE -2138 ASSEMBLY WILL HAVE A "D" STAMPED ON IT. THE -8620 ASSEMBLY WILL BE STAMPED "E."

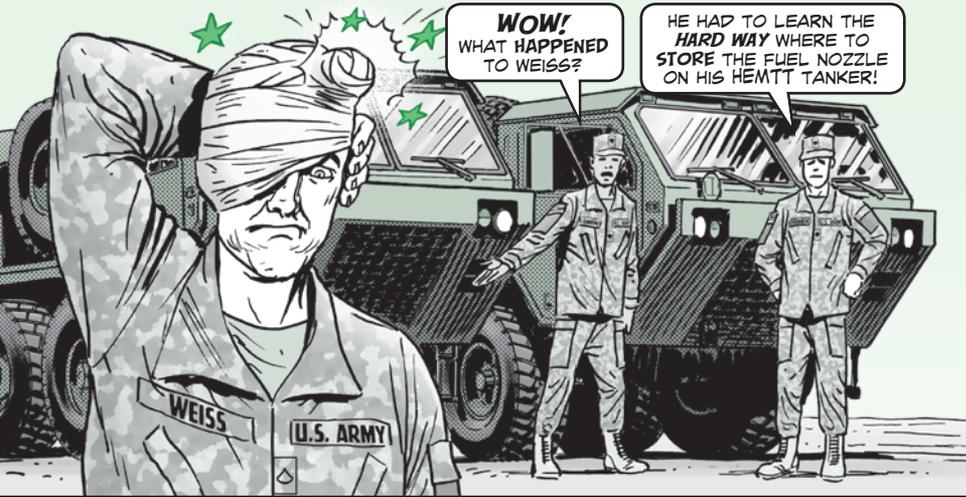
HOWEVER, BECAUSE OF SIMILARITIES BETWEEN THE THREE ASSEMBLIES, IT'S **EASY** TO MAKE **TWO COMMON MISTAKES** IF YOU DON'T PAY CLOSE ATTENTION.



IT'S **ALSO** IMPORTANT TO NOTE THAT **ALL THREE** OF THESE TIRE AND WHEEL ASSEMBLIES (NSNs 2530-01-558-2138, 2530-01-493-5859 AND 2530-01-563-8620) ARE **KNOWN READINESS DRIVERS**.



DON'T FUEL AROUND WITH HOSES!



WOW!
WHAT HAPPENED
TO WEISS?

HE HAD TO LEARN THE
HARD WAY WHERE TO
STORE THE FUEL NOZZLE
ON HIS HEMTT TANKER!

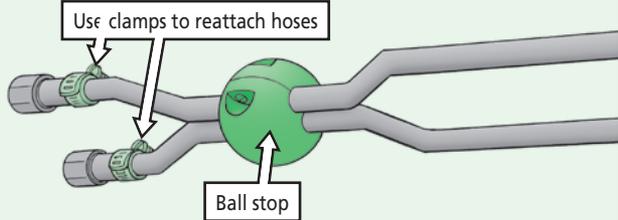
DRIVERS, THE
NEXT TIME YOU
TAKE YOUR M978-
SERIES TANKER
OUT FOR FUELING
OPERATIONS,
REMEMBER
THESE TIPS...



Take HAV for a Walk

The hand-activated valve (HAV) likes to be leisurely walked back to its reel. Never let it go flying back into place. Even if the HAV is lucky enough to make it through the reel window on the fly, it still takes a beating. The jolts on the air lines can be bad enough to pull the hoses away from the control.

If that happens, fix the HAV yourself. Just cut off a couple inches of hose and push it back over the fitting. Then secure the hose in place with a screw-type hose clamp, NSN 4730-00-363-4102.

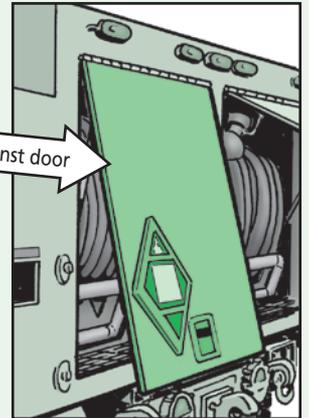
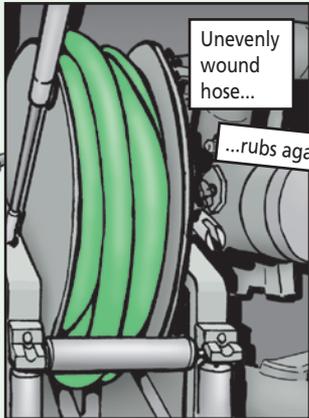


While you're at it, make sure the hoses have a ball stop, **NSN 5340-01-361-2014**. If you accidentally let go of the HAV, the ball stop takes most of the punishment instead of the air hose.

Keep Reel Real Straight

A poorly stacked hose can stick out past the reel far enough to touch the rear door. As you drive the tanker, a hole gets worn into the hose where it rubs against the door. The tanker is NMC for fueling operations until the hose is replaced.

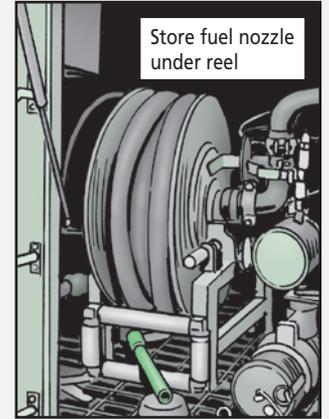
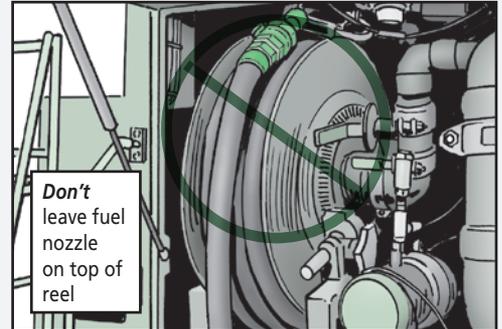
TAKE YOUR
TIME WHEN
REELING IN THE
FUEL HOSE.
GO TOO FAST
AND THE HOSE
WON'T WIND IN
EVENLY.



Muzzle the Fuel Nozzle

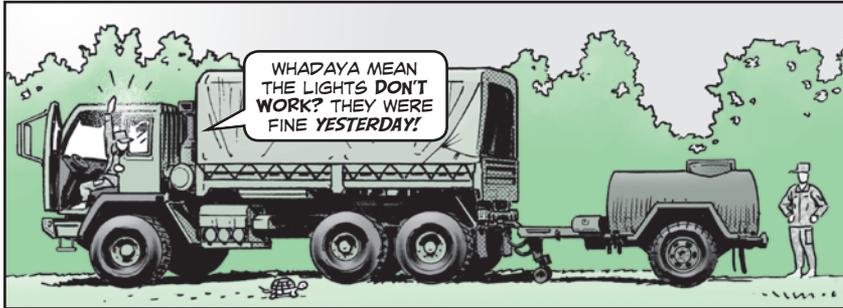
Once the fuel hose is reeled in, what do you do with it? Some Soldiers lay it on top of the reel so it's easy to get to the next time it's needed.

There are at least two good reasons why that's a bad idea. First, that lets the hose stick out far enough to rub against the door. Second, the nozzle can catch on the module light's wiring and rip it loose. Third, the next time you open the door, you're likely to get conked on the head by a falling fuel nozzle!



Always slide the fuel nozzle through the reel window when you're finished. That keeps both the hose and your head in good condition.

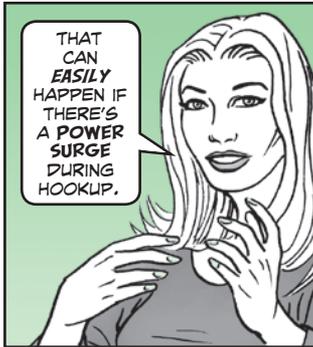
LIGHTS OUT? CHECK THE BREAKER



EVER HOOK UP A TRAILER TO YOUR FMTV, ONLY TO FIND THAT THE TRAILER LIGHTS AREN'T WORKING?

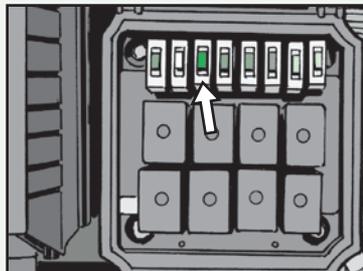
THE NEXT STEP IS USUALLY TO CALL IN YOUR MECHANIC. THEN HE GOES THROUGH **HOURS AND HOURS** OF TROUBLESHOOTING, TRYING TO FIGURE OUT THE PROBLEM.

BUT THE SOLUTION **COULD** BE AS SIMPLE AS A TRIPPED CIRCUIT BREAKER.



JUST RESET CIRCUIT BREAKER 44 AND SEE IF THAT FIXES THE PROBLEM.

YOU'LL FIND THE CIRCUIT BREAKER BOX UNDER THE PANEL ON TOP OF THE PASSENGER SIDE DASH.



Reset circuit breaker 44 for trailer lights



SWITCH TO AGM BATTERIES

Looking to replace the wet cell batteries in your construction equipment? Maintenance-free absorbed glass mat (AGM) batteries are the way to go.



Vehicle	NSN 6140-
621B scraper	01-485-1472
D7F dozer	01-485-1472
D7R II dozer	01-457-5469 (Optima yellow-top w/threaded stud terminals)
	01-502-4973 (Optima yellow-top w/automotive terminals)
	01-502-4405 (Optima blue-top w/automotive terminals)
	01-557-6221 (Exide XRF-31E AGM-200)

The D7G dozer doesn't have an approved AGM variant. Continue using the 908D wet cell battery, NSN 6140-01-475-4243, or the 908D gel battery, NSN 6140-01-457-5280.

There is one other option: You can replace each 908D battery with two AGM batteries, **NSN 6140-01-485-1472**. The 908D battery is roughly the same size as two of these AGM batteries and they have similar cold cranking amp ratings.

NOTE: Highlighted NSNs are known readiness drivers.

Helicopters!
 • Common Aviation Tool System
 • Cockpit weather protection

BUCKLE UP TIGHT FOR THESE AVIATION STORIES!



AGSE...

AVIATION TOOLS HAVE COME A LOOONG WAY

Out with the OLD, in with the NEW!



I'M THE NEW TOOL BOX!

Before 1995

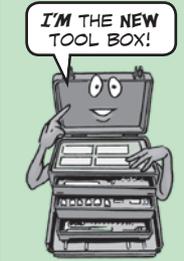
Legacy "Red" Tool Box



I'M THE NEW TOOL BOX!

1995

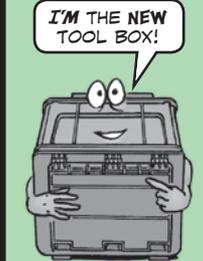
NATS Tool Box



I'M THE NEW TOOL BOX!

2008

Kipper Reset Tool Box



I'M THE NEW TOOL BOX!

2015

CATS Tool Box

MECHANICS, THE AVIATION GROUND SUPPORT EQUIPMENT (AGSE) PRODUCT MANAGER IS BEGINNING TO FIELD THE NEW COMMON AVIATION TOOL SYSTEM (CATS).

CATS IS REPLACING THE NEW AVIATION TOOL SYSTEM (NATS) AND THE KIPPER RESET TOOL BOX. IT INCLUDES AEROSPACE AND INDUSTRIAL QUALITY TOOLS THAT ARE HOUSED IN DRAWERS WITH FOAM CUTOUTS.



INCLUDED IN EACH TOOL KIT IS AN **ILLUSTRATED COMPONENT LIST** WHICH SHOWS THE **STORAGE LOCATION** FOR TOOLS IN EACH DRAWER.

I FOUND IT! THIS IS WHERE I BELONG!

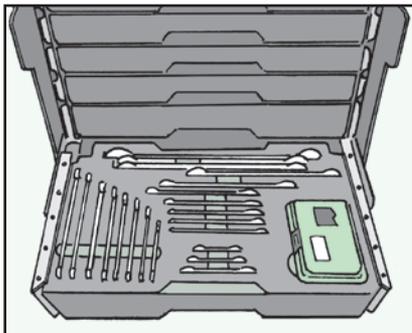
THAT SIMPLIFIES INVENTORY AND REDUCES THE RISK OF FOREIGN OBJECT DAMAGE (FOD).

PS MORE

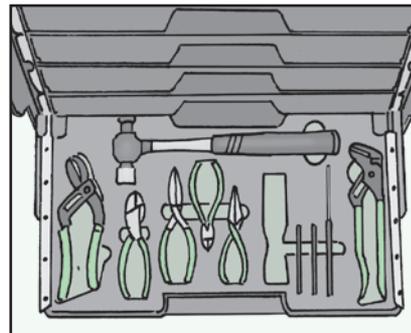


CATS IS MADE UP OF SEVERAL DIFFERENT TOOL KITS. THESE KITS INCLUDE...

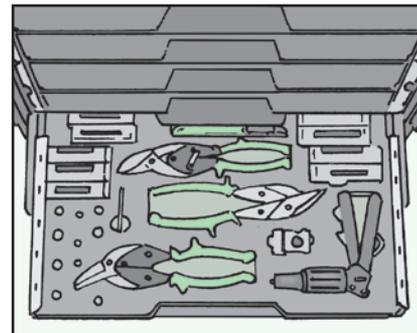
Hydraulic tool kit (HYTK),
NSN 5180-01-628-2370



General mechanics tool kit (GMTK),
NSN 5180-01-628-2375

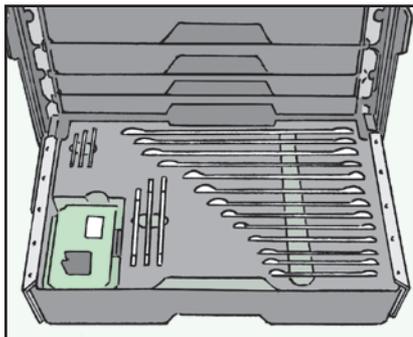


Sheet metal tool kit (SMTK),
NSN 5180-01-628-2376



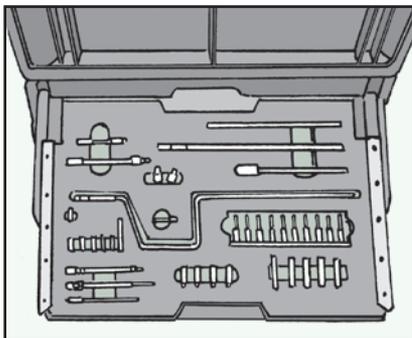
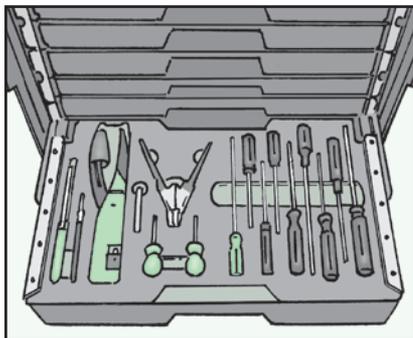
Power plant tool kit (PPTK),
NSN 5180-01-628-2371

Technical inspection tool kit (TITK),
NSN 5180-01-628-2372



Electrical tool kit (ELTK),
NSN 5180-01-628-2373

Powertrain tool kit (PTTK),
NSN 5180-01-726-2374



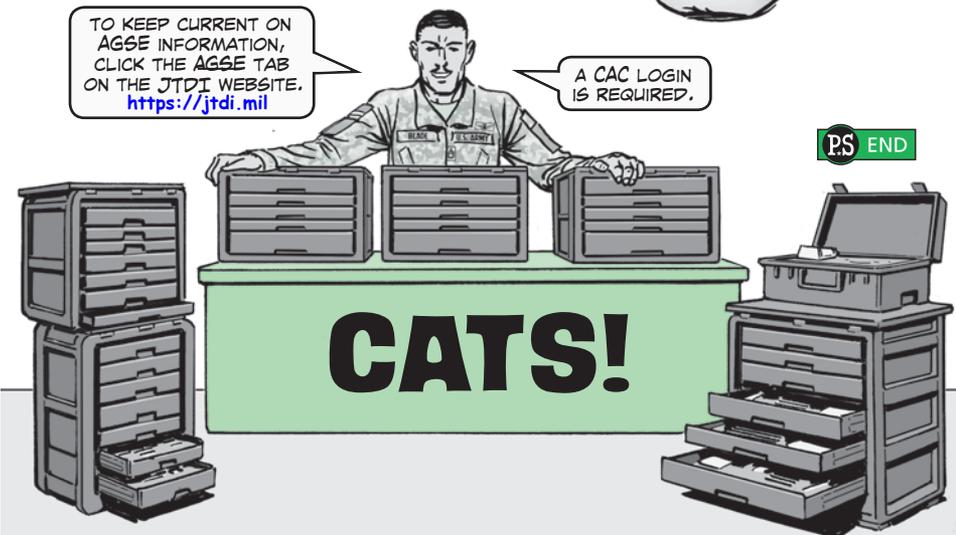
CATS FIELDING SHOULD BE DONE BY THE 4TH QUARTER OF FY17.

ALL ACTIVE, NATIONAL GUARD AND RESERVE MTOE AND SPECIFIED TDA UNITS WILL RECEIVE CATS TO REPLACE THEIR EXISTING NATS.

TO KEEP CURRENT ON AGSE INFORMATION, CLICK THE AGSE TAB ON THE JTDI WEBSITE.
<https://jtdi.mil>

A CAC LOGIN IS REQUIRED.

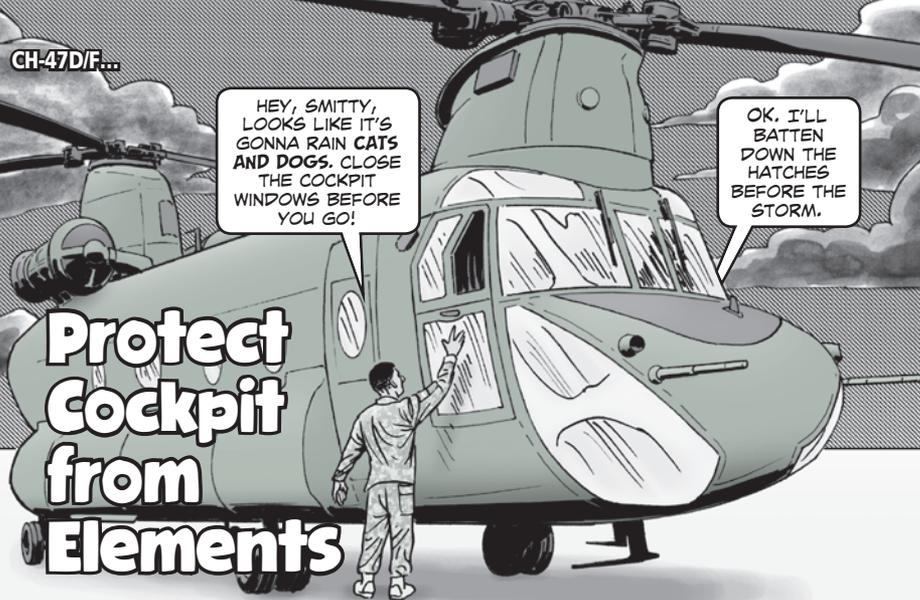
PS END



HEY, SMITTY, LOOKS LIKE IT'S GONNA RAIN CATS AND DOGS. CLOSE THE COCKPIT WINDOWS BEFORE YOU GO!

OK, I'LL BATTEN DOWN THE HATCHES BEFORE THE STORM.

Protect Cockpit from Elements



Mechanics, as long as you batten down the cockpit hatches, your Chinook is well protected from the weather.

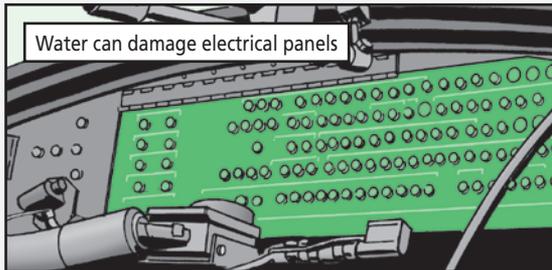
The weather we're talking about is rain. Your Chinook cockpit contains electrical equipment, including multi-functional displays. You should never leave the cockpit windows open because a sudden rain shower and electricity don't mix.



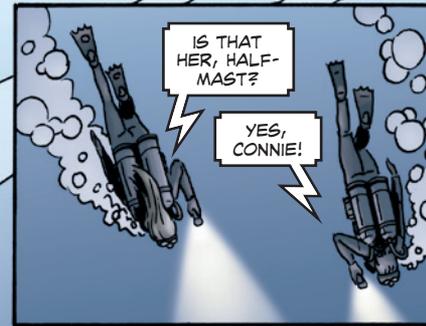
Don't leave cockpit windows open in showers

The right (pilot) and left (co-pilot) cockpit circuit breaker panels, generally referred to as the AC and DC electrical panels, sit next to the windows. If rain contacts the circuit breakers, you could be looking at fried breakers and wiring damage.

If the cockpit windows are accidentally left open during a shower, let the breakers dry before you start your aircraft. Then, if you turn on the aircraft and circuit breakers pop or nothing works, it's time to call your electrician.



Water can damage electrical panels

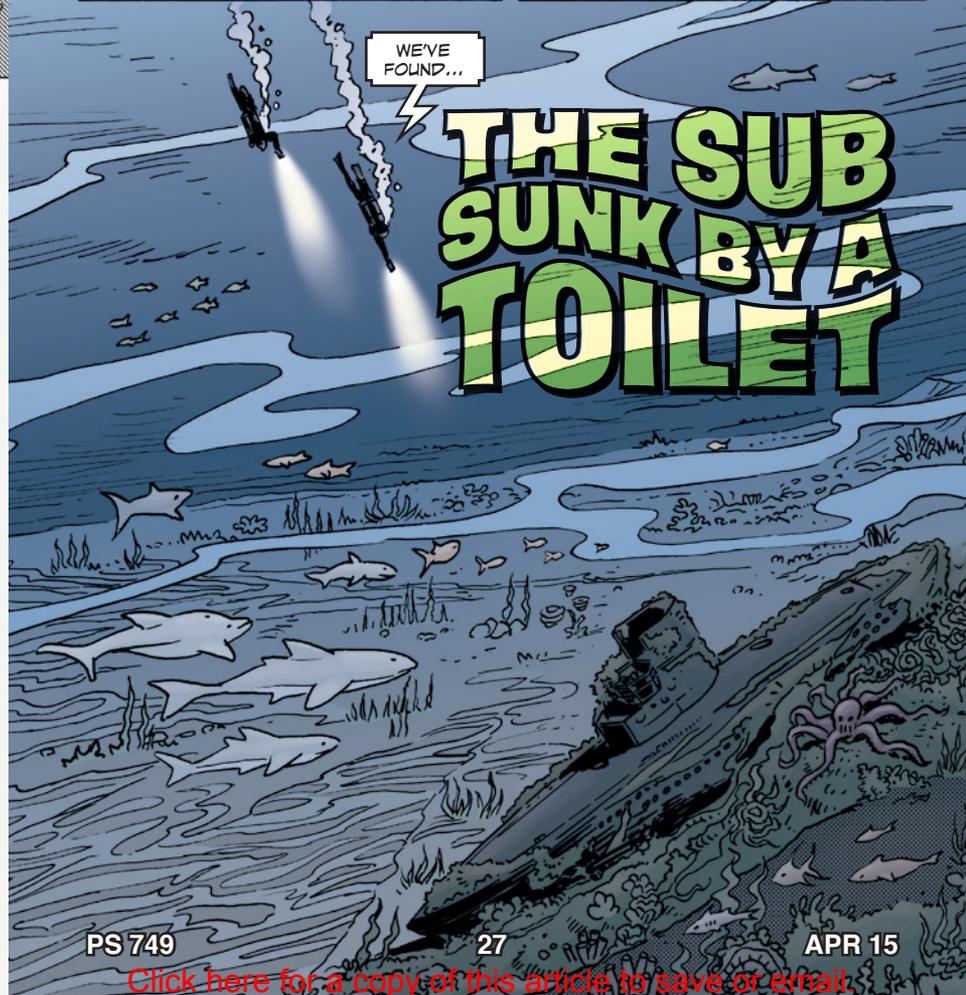


IS THAT HER, HALF-MAST?

YES, CONNIE!

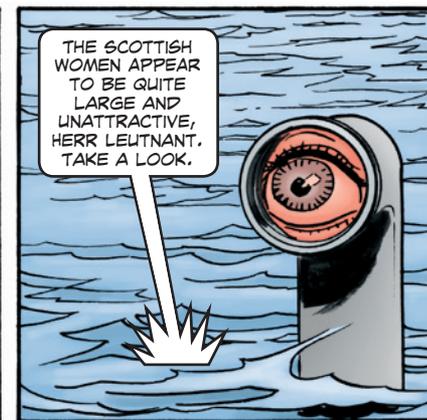
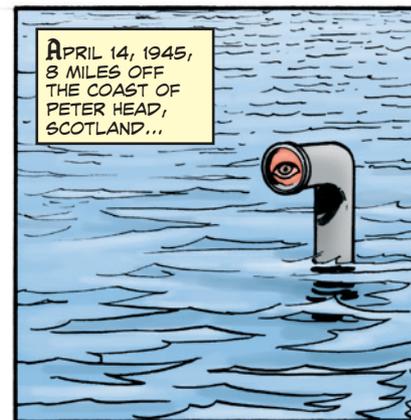
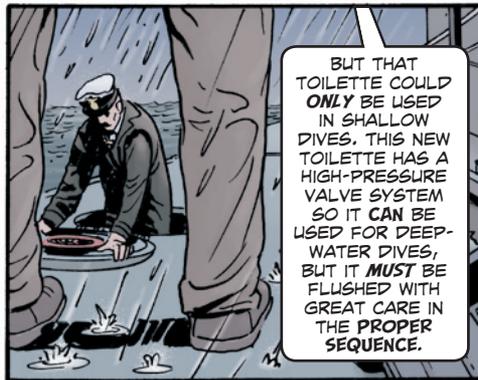


THAT'S HER! THE U-1206!

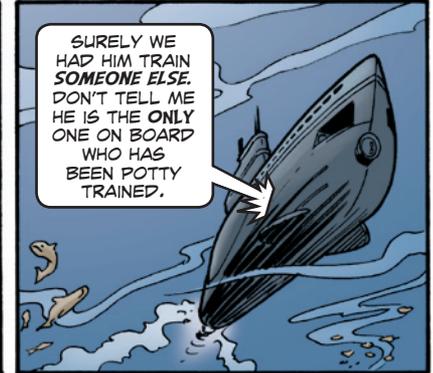
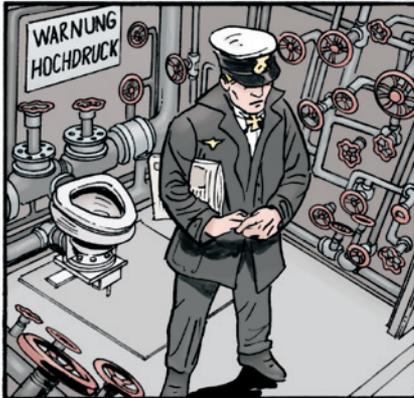


WE'VE FOUND...

THE SUB SUNK BY A TOILET



**PAY ATTENTION TO WHAT MAY SEEM
UNIMPORTANT. SMALL DETAILS IGNORED NOW CAN
BECOME BIG PROBLEMS LATER.**



AARUGHA!

THOSE TRAINED MUST TRAIN OTHERS. KNOWLEDGE MUST BE SHARED.



WELL?

KAPITAN, I HAVE GOOD NEWS AND BAD NEWS.



WHAT IS THE GOOD NEWS?

THE WATER IS SHUT OFF AND THE SUB WILL NOT SINK...UNLESS YOU WANT IT TO, OF COURSE.



AND WHAT IS THE BAD NEWS?

KAPITAN, DAS KRAPPER IST KAPUT!



SO BE IT. WE WILL JUST HAVE TO HOLD IT UNTIL WE GET BACK TO GERMAN-CONTROLLED WATERS. WE CANNOT SURFACE HERE WITHOUT BEING DESTROYED.

KAPITAN, DO YOU SMELL THAT?



I WARNED YOU! WE SERVE TOO MUCH SAUERKRAUT ON THIS BOOT.

NO, SIR. NOT THAT. THAT!

SNIFF! SNIFF!



THAT SMELL IS CHLORINE GAS. IT COMES FROM OUR BATTERIES WHEN SALT WATER FLOODS OVER THEM.



CHLORINE GAS WILL KILL US ALL! WE MUST SURFACE AND GET FRESH AIR INTO DAS BOOT.

HOW DID THE BATTERIES GET FLOODED WITH SALT WATER? DON'T TELL ME THEY'RE LOCATED RIGHT BELOW THE TOILETTE!



KAPITAN, THEY ARE LOCATED RIGHT BELOW THE TOILETTE!

WHY DO YOU KEEP TELLING ME THINGS I TELL YOU NOT TO TELL ME?



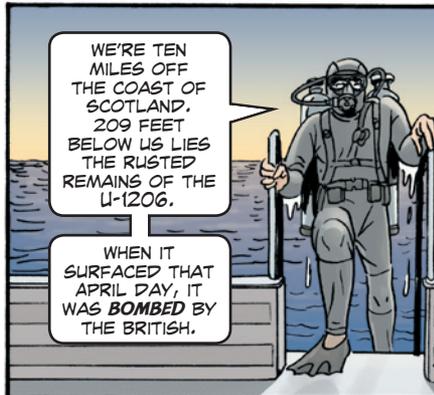
SURFACE! SURFACE DAS BOOT!

AARUGHA!



AARUGHA!

A-n-t-i-c-i-p-a-t-i-o-n! THE HEART OF PREVENTIVE MAINTENANCE IS RECOGNIZING WHAT MIGHT BECOME A PROBLEM.



WE'RE TEN MILES OFF THE COAST OF SCOTLAND. 209 FEET BELOW US LIES THE RUSTED REMAINS OF THE U-1206.

WHEN IT SURFACED THAT APRIL DAY, IT WAS BOMBED BY THE BRITISH.



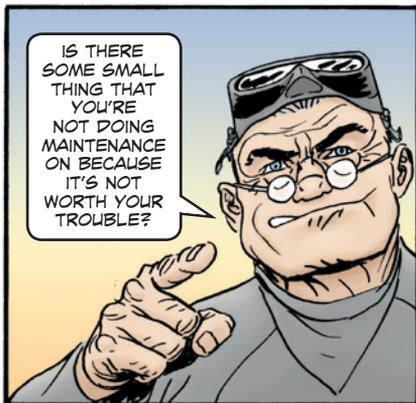
IT'S ODD THINKING ABOUT A TOILET BRINGING DOWN A MIGHTY SHIP OF WAR.



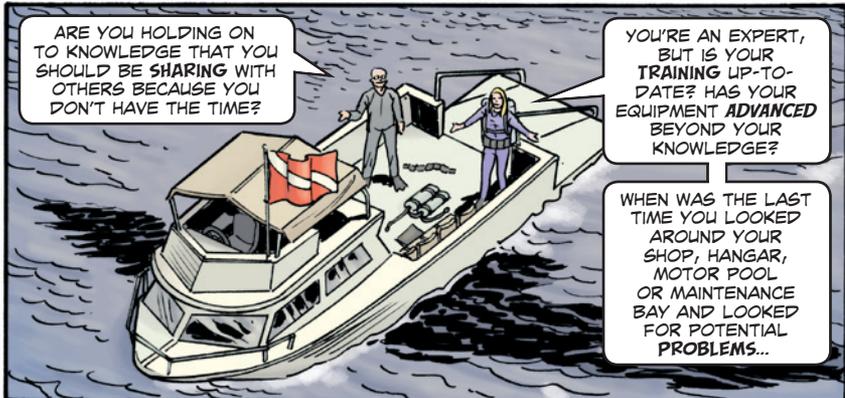
BUT FOUR SAILORS ON THE U-1206 DIED IN THE WATERS AROUND ME.



LISTEN! CAN YOU HEAR THAT? IT SOUNDS LIKE A SUBMARINE DIVE ALARM ISSUING A WARNING.



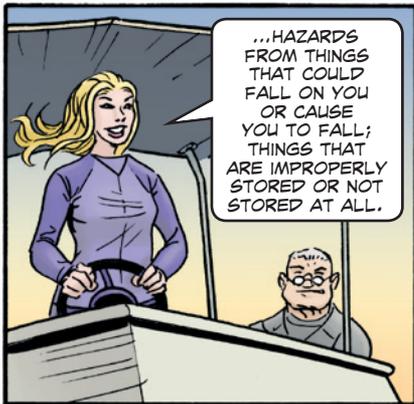
IS THERE SOME SMALL THING THAT YOU'RE NOT DOING MAINTENANCE ON BECAUSE IT'S NOT WORTH YOUR TROUBLE?



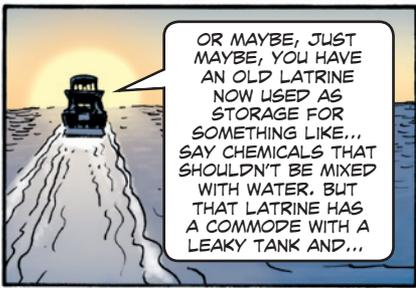
ARE YOU HOLDING ON TO KNOWLEDGE THAT YOU SHOULD BE SHARING WITH OTHERS BECAUSE YOU DON'T HAVE THE TIME?

YOU'RE AN EXPERT, BUT IS YOUR TRAINING UP-TO-DATE? HAS YOUR EQUIPMENT **ADVANCED** BEYOND YOUR KNOWLEDGE?

WHEN WAS THE LAST TIME YOU LOOKED AROUND YOUR SHOP, HANGAR, MOTOR POOL OR MAINTENANCE BAY AND LOOKED FOR POTENTIAL PROBLEMS...



...HAZARDS FROM THINGS THAT COULD FALL ON YOU OR CAUSE YOU TO FALL; THINGS THAT ARE IMPROPERLY STORED OR NOT STORED AT ALL.



OR MAYBE, JUST MAYBE, YOU HAVE AN OLD LATRINE NOW USED AS STORAGE FOR SOMETHING LIKE... SAY CHEMICALS THAT SHOULDN'T BE MIXED WITH WATER. BUT THAT LATRINE HAS A COMMODE WITH A LEAKY TANK AND...



AARUGHA!

PS SMALL ARMS

I HOPE *PS* HAS SOME GOOD INFO THIS MONTH ON **CLEANING WEAPONS.**

I'M GONNA NEED IT.

- S**log through these articles on:
- Small arms PM tips
 - P-D-680 solvent replacement
 - Mortar round counts
 - MK 19 mandatory replacement parts
 - Carrying M240, M249 machine guns safely



Big Tips for Small Arms



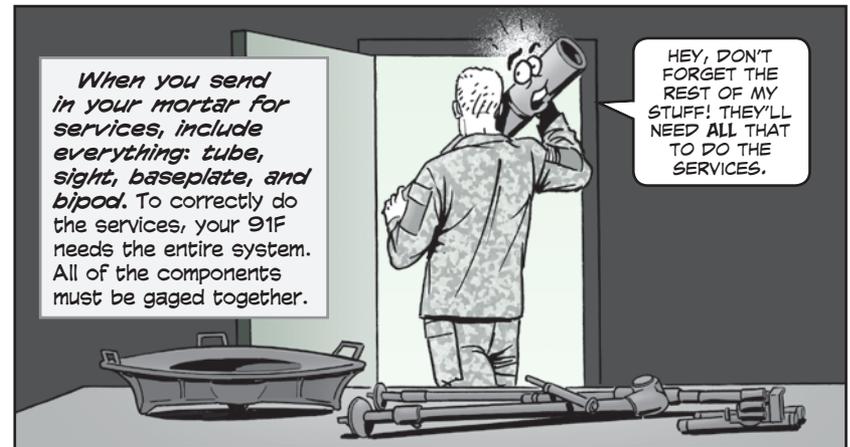
Dear Editor,

While repairing small arms at Ft Polk, I've come up with several tips that will help units keep their weapons on the active list.

Don't slam the M2 machine gun feed cover shut. That causes several problems. Soldiers forget to first put the extractor in the down position and then the extractor is damaged. Slamming down the cover can also bend the feed lever and cause the lever to take out chunks of the bolt. The best way to load the M2 is to first guide the cover into the locked position. Then push the rounds into the feed tray with your fingers and cycle the weapon twice. You're ready to fire.



When you send in your mortar for services, include everything: tube, sight, baseplate, and bipod. To correctly do the services, your 91F needs the entire system. All of the components must be gaged together.



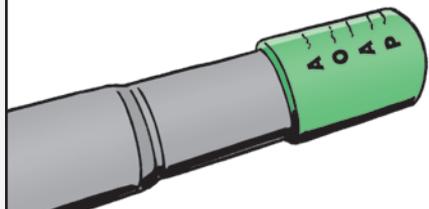
Don't forget the traversing mechanisms and tripods for the M2, M240, M249 and MK 19 machine guns. They are often ignored and end up rusted and ruined. Include the tripods and traversing mechanisms in the quarterly inspections. When you send in your weapons for services, also send in the traversing mechanisms and tripods so they can be gaged together.



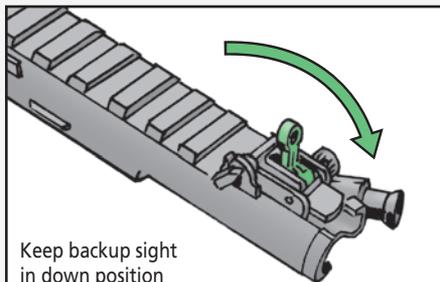
WEAPON RECORD DATA		REQUIREMENT CONTROL SYMBOL CDSGL-1001	
For use of this form, see DA PAMs 738-750 and 738-751; the proponent agency is DSC/LOG			
1. TUBE SERIAL NO.	2. CANNON TYPE, MODEL OR SERIES	3. ORGANIZATION (A/C)	4. SPECIAL LIFE DATA
<p>If your unit has mortars, M1-series tanks or howitzers, make sure someone in your unit has access to the TULSA site. It's not only important to fill out the DA Form 2408-4, Weapons Record Data Card, every time you fire, but also to enter the information in TULSA. That's impossible if no one has access to it. This often happens when Soldiers rotate out of a unit. Go to: https://tulsa.tacom.army.mil/guncard/index.cfm</p>			

Protect M2 barrel threads. M2 barrels are constantly being tossed in trucks. That bungs up the barrel threads. If the threads become too damaged, the barrel is ruined. The best barrel thread protection is the protective cap, NSN 5340-01-552-0082. But if you're missing the caps a good temporary fix is an AOAP bottle. Just cut off the end of the bottle and screw it on the barrel.

Old AOAP bottle protects M2 barrel threads



Store the M4/M16 backup sight in the down position...and leave it on. If you leave the sight up, soon it's broken off. But if you remove it, you don't have a backup sight if your main sight fails.



Keep backup sight in down position

CWZ Levi McClure
94th BSB
Ft Polk, LA



WHEW, CHIEF! YOU'VE JUST GIVEN SMALL ARMS FOLKS A LARGE AMOUNT OF HELP. THANKS FOR SHARING YOUR EXPERIENCE.

YOU'RE WELCOME, BONNIE. I'M GLAD I COULD HELP!

P-D-680 Is History



TIME FOR YOU TO GO, P-D-680!

I'M TAKING YOUR PLACE BECAUSE YOU'RE NO GOOD FOR THE ENVIRONMENT!

Dear Half-Mast,

As far back as 2005, PS told Soldiers to stop using P-D-680 dry cleaning solvent because it was bad for the environment. But it's still available in the supply system. Is it now OK to use?

Mr. J.M.

NO, SIR, IT'S NOT OK TO USE P-D-680.

NO ONE SHOULD BE USING IT.

AND WE'RE PUZZLED WHY IT'S STILL AVAILABLE IN THE SUPPLY SYSTEM.



IT'S BEEN REPLACED BY MIL-PRF-680 CLEANING SOLVENT. IT DOES A GOOD CLEANING JOB AND INCLUDES DIFFERENT SOLVENT TYPES TO CHOOSE FROM, DEPENDING ON YOUR CLEANING OPERATION.

IT'S MUCH BETTER FOR THE ENVIRONMENT THAN P-D-680.

FOR SMALL ARMS, ORDER A GALLON OF THE TYPE II VERSION WITH NSN 6850-01-474-2319 FOR ABOUT \$22.

ANY MENTION OF P-D-680 WILL BE REMOVED FROM FUTURE SMALL ARMS TMS.

SMALL ARMS REPAIRMEN NEED TO REMEMBER THAT CLEANING SOLVENT NOT ONLY DOES A GOOD JOB CLEANING OFF CARBON, BUT IT ALSO CLEANS OFF ALL LUBE.

SO AFTER YOU USE SOLVENT, YOU NEED TO COMPLETELY RE-LUBE THE WEAPON. OTHERWISE, IT HAS NO PROTECTION AGAINST CORROSION.



Mortars...

KEEP COUNTING ROUNDS

WELL, THAT WAS A GOOD FIRING DAY. I'M OUTTA HERE!



HOLD ON THERE, SPEEDY! FIRST RECORD HOW MANY ROUNDS I FIRED!

Every time you fire your mortar it should be recorded on the DA Form 2408-4, *Weapon Record Data Card*, and then transferred to the electronic gun card in TULSA.

This is especially true if you're firing the M224A1 mortar. It uses the 60mm M225A1 cannon tube. That cannon tube is deadlined after 10,000 rounds or when its bore diameter reaches 2.404 inches, whichever comes first. If you've lost count of how many rounds have been fired, a high count has to be assumed. The M225A1 may be deadlined too soon.

There is no round count limit for other mortar cannon tubes, but there's still a requirement to track rounds fired.

Enter 2408-4 information at TULSA: <https://tulsa.tacom.army.mil/guncard/index.cfm>

For more on inspecting cannon tubes, see TM 9-1000-202-14 (Feb 99, with Change 5, Jan 11), *Evaluation of Cannon Tubes*.

MK 19 Machine Gun...

MANDATORY PARTS REPLACEMENT NO LONGER MANDATORY

Dear Editor,

I'm seeing units following the MK 19 machine gun mandatory replacement parts list that was in the 2004 version of TM 9-1010-230-23&P. But the Aug 12 version eliminated the mandatory replacement list. That means the parts should be replaced only as needed.

But when I tell units this, they don't believe me. It would help if you told them, too.

SSG Charles Beeman
701st BSB
Ft Riley, KS

Editor's note: Believe SSG Beeman!
Replace those MK 19 parts only as needed.

M240-Series,
M249 Machine Guns...

PUT ME DOWN!
I'M NOT GOING ANYWHERE WITH YOU UNLESS YOU SAFELY CARRY ME. WE DON'T WANT ANY NASTY DISCHARGES!



CAREFUL HOW YOU CARRY

BOTH THE M240 AND M249 MACHINE GUNS FIRE FROM THE OPEN BOLT POSITION.

THAT MEANS PUSHING THE COCKING HANDLE FORWARD... RIDING THE BOLT FORWARD... COULD CAUSE A ROUND ALREADY CHAMBERED TO FIRE.



THAT'S WHY YOU SHOULD CARRY THE M240 OR M249 WITH THE SAFETY SET TO FIRE, ITS BOLT FORWARD, AND NO ROUND IN THE CHAMBER. **DON'T** PUT THE GUN ON SAFE WITH THE BOLT FORWARD!

A ROUND IN THE CHAMBER OR ON THE FEED TRAY IS A **FATAL ACCIDENT** WAITING TO HAPPEN.

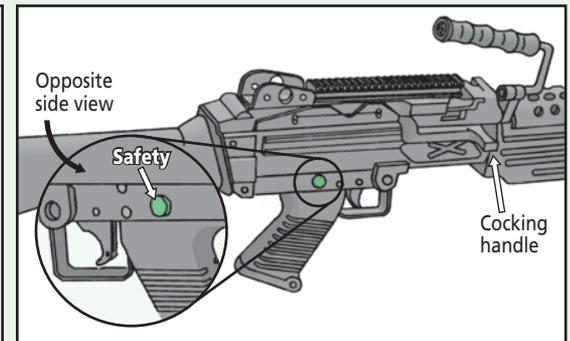
ALWAYS CLEAR YOUR M240 OR M249 BEFORE YOU RIDE THE BOLT FORWARD.

IF YOU'RE HAZY ON HOW TO CLEAR YOUR MACHINE GUN, CHECK OUT THE CLEARING PROCEDURE IN THE M249'S TM 9-1005-201-10 OR THE M240'S TM 9-1005-313-10.

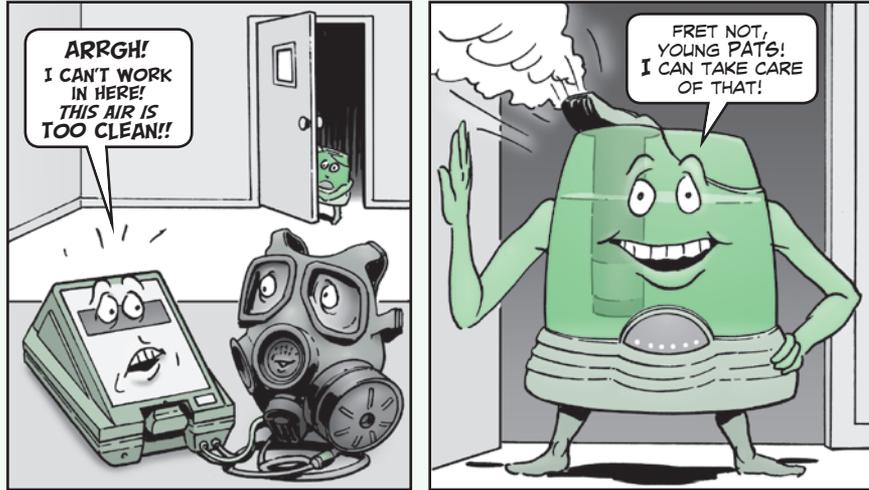
IF THE BOLT IS LOCKED TO THE REAR, THE SAFETY **MUST** BE SET TO SAFE!

YOU CAN SAFELY CARRY THE M240 OR M249 **THREE DIFFERENT WAYS:**

- Bolt forward, set to FIRE, no round in chamber
- Bolt forward, set to FIRE, with rounds positioned for chambering when the weapon is charged (you're expecting engagement)
- Bolt locked to rear, set to SAFE, with or without rounds chambered



Clean Air Causes Dirty Problem



THE M41 PROTECTION ASSESSMENT TEST SYSTEM (PATS) NEEDS SLIGHTLY DIRTY AIR TO DO ITS JOB.

IF THE AIR'S PARTICLE COUNT IS BORDERLINE, IT CAN'T ACCURATELY TEST CBRN MASKS.

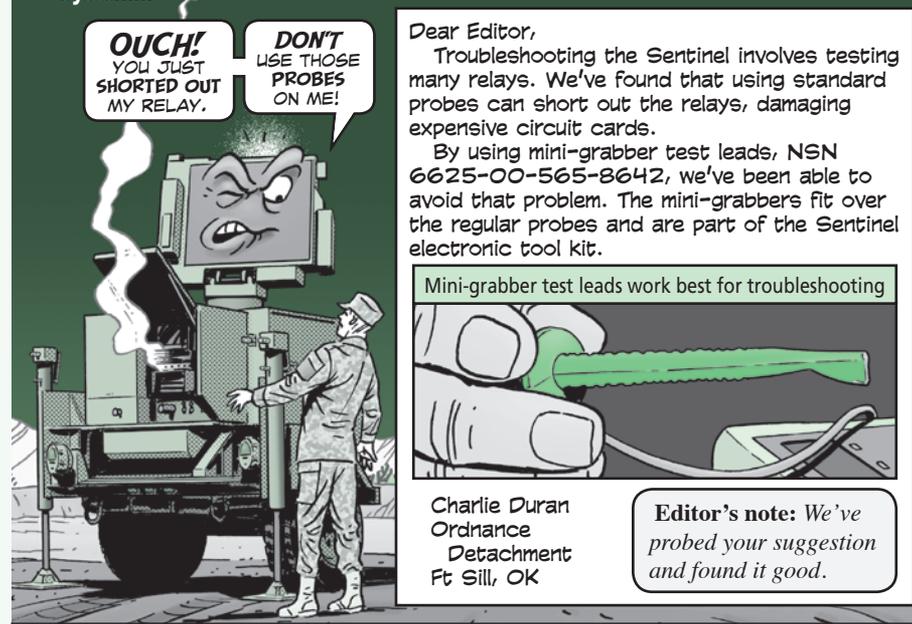
Filter efficiency in modern heating, ventilation and air conditioning (HVAC) systems make it tougher to get that slightly dirty air. One recent test found with the HVAC system off, the ambient particle count was 10,000-12,000 particles per cubic centimeter. But once the HVAC was turned on, the count dropped to an average of 1,000 particles, which can prevent PATS from doing its job.

The PATS TM says the solution is to burn a candle in the room where you're testing. Unfortunately, that will foul the M41 optics after just a few times. Then PATS has to take a trip all the way to Redstone Arsenal to have its optics cleaned or repaired.

Fortunately, there's a **cheap fix**: an ultrasonic humidifier. It adds enough particles to the air so that PATS can operate.

The **bad news** is that there are no ultrasonic humidifiers in the supply system. The **good news** is that you can go to your local big box store and buy one for around \$30. That's much cheaper than repairing the PATS' optics.

CLAMP PROBES WORK BEST



Dear Editor,
Troubleshooting the Sentinel involves testing many relays. We've found that using standard probes can short out the relays, damaging expensive circuit cards.

By using mini-grabber test leads, NSN 6625-00-565-8642, we've been able to avoid that problem. The mini-grabbers fit over the regular probes and are part of the Sentinel electronic tool kit.



Charlie Duran
Ordnance
Detachment
Ft Sill, OK

Editor's note: We've probed your suggestion and found it good.

HIMARS...

Window Laminates NSNs?

Dear Half-Mast,

The HIMARS IETM gives the process for replacing the truck windows' laminate when they get too beat up to see through. But the NSNs listed are no good. How do you get the laminate?

CW3 M.T.

Dear Chief,

First of all, this problem is going away. The HIMARS windows are being replaced by a PM-FALS team with Sapphire Glass Polycarbonate Transparent Armor, which doesn't use the peelply windows.

But in the meantime, you can use these NSNs to order 6-layer peelply:

- Driver's side (roadside), NSN 2541-01-607-6814
- Passenger's side (curbside), NSN 9330-01-607-7801
- Side doors, NSN 9330-01-607-8254

Half-Mast

Say Hi to HIMARS Tips

HERE'S SOME GOOD ADVICE FROM FT SILL.



YOU GOT THAT RIGHT, HALF-MAST!

Dear Editor,

While keeping the HIMARS up and running at Ft Sill, we've come up with a few tips that will help other units.

Keep an eye on the brake line fittings. They're made of plastic or brass and tend to crack. Then the brake lines leak.

Remember, you can't drive the HIMARS like an MLRS. The HIMARS is a truck, not a track. If you drive it over bushes or rocks, things under the chassis might be damaged. As a general rule, you should drive slow and easy if you're going cross-country.



HEY, SLOW DOWN!

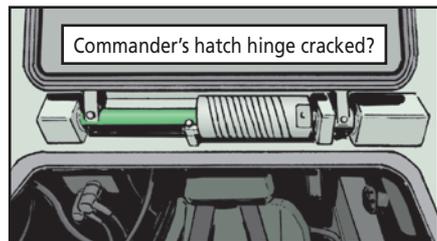
YOU MUST HAVE ME CONFUSED WITH AN MLRS!

I CAN'T TAKE ROUGH COUNTRY AT THIS SPEED!!

No lifting to tow. The considerable weight of the launcher can bend the frame if HIMARS is towed with its wheels off the ground. HIMARS should be towed with all wheels on the ground at a maximum speed of 30 mph and for no more than 100 miles. If you're towing more than a short distance, remove the drive shafts.

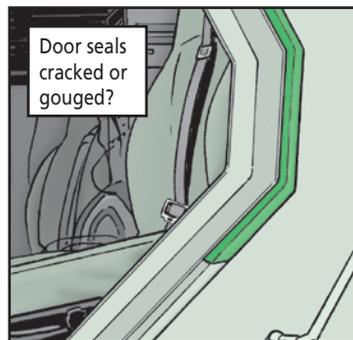
Check the commander's hatch hinge for cracks during PMCS.

The hinge bar mounting blocks are welded and they sometimes crack. That can make it impossible to seal the cab. During travel, the hatch could suddenly crash down if the hinge breaks.



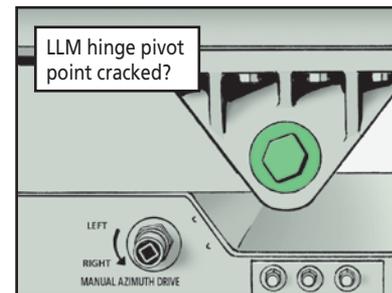
Commander's hatch hinge cracked?

Eyeball the door seals. If they're cracked or gouged, the cab can't seal.



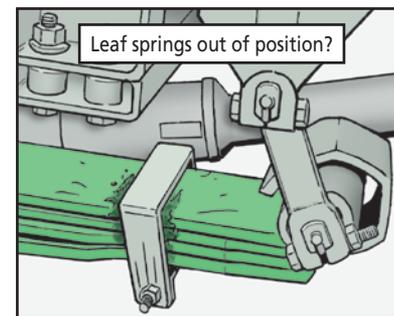
Door seals cracked or gouged?

Check the LLM hinge pivot point for cracks. Be sure to inspect both sides of the pivot point. Sometimes cracks look like chipped paint. If the pivot point gets too bad, the launcher could actually separate from the chassis during firing.



LLM hinge pivot point cracked?

Eyeball the position of the leaf springs during PMCS. Sometimes they slip out of position during travel. That can cause the leaf spring container to break, which could ruin the suspension.



Leaf springs out of position?

Remember HIMARS has its own tire assembly. The HIMARS assembly is aluminum and the FMTV's is steel. Use an FMTV tire assembly only in an emergency and remember to use the steel lug nuts that are part of your BII. It includes one set each of left- and right-side steel lug nuts. Replace the FMTV tire assembly as soon as possible with a HIMARS assembly.



OK, I GOT THE ALUMINUM ONE THIS TIME!

CW3 Michael Tyler
1-14 FAR
Ft Sill, OK

Editor's note: You just made things easier for HIMARS units, Chief. Thanks.

Listen up to these commo articles on:

- 5-kw TQG air cleaner assembly
- SINCGARS component MEL changes
- JTT-SR repair information
- AS-4710/VRC loop antenna damage prevention
- MCPS replacement



PS COMMUNICATIONS

5-kw TQG...

How to Get Air Cleaner Assembly

"BLEH! I'M NOT FEELIN' RIGHT."

"THAT'S 'CAUSE YOUR AIR CLEANER ASSEMBLY IS KAPUT, BUDDY."

"I JUST SAW THE SKINNY IN PS ON HOW TO GET YOU A NEW ONE. I'LL ORDER IT RIGHT NOW!"



Dear Half-Mast,

My unit has a 5-kw MEP-802A tactical quiet generator (TQG) that needs a new air cleaner assembly. TM 9-6115-641-24&P (Oct 96) gives a PN of 88-21062 for the assembly, but that PN doesn't cross to an NSN. Can you help?

SGT H.R.

Dear Sergeant,

Sure can. Here's the scoop. Your item's SMR code is XD. An XD-coded item is not stocked and should be ordered through local purchase or normal supply channels using the CAGE code and PN, if no NSN is available.

The Communications-Electronics Research Development and Engineering Center (CERDEC) explained there's no NSN for this generator's air cleaner assembly because demand is too low. The whole air cleaner assembly is rarely replaced because the filter element inside it can be replaced.

CERDEC also told us they are gradually replacing PM data with vendor data so users can contact vendors directly for support. This has caused some PN changes.

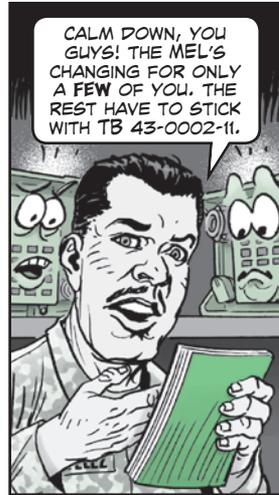
In your case, there has been an update to the PN. Order PN X006970 with CAGE code 18265 on a DD Form 1348-6.

Or you can contact the supplier, Donaldson Company, at (952) 887-3131 or through their website at:

<http://www.donaldson.com>

Half-Mast

MEL Changing for Some Components



TB 43-0002-11 (MAY 79) HAS LONG BEEN THE **GO-TO MANUAL** FOR MAINTENANCE EXPENDITURE LIMITS (MELs) ON GROUND SINGGARS COMPONENTS. HOWEVER, CECOM LCMC HAS NOW ISSUED AN **EXCEPTION**.

IN SUPPORT OF ONGOING MISSION READINESS, THE MEL FOR THE FOLLOWING COMPONENTS IS NOW AT **100 PERCENT** OF REPLACEMENT COST:

Component	NSN
RT-1523E	5820-01-444-1219
RT-1523F	5820-01-535-3667
AM-7239E	5895-01-444-1218
AM-7238	5895-01-195-4844
AM-7238A	5895-01-306-8093
AM-7238B	5895-01-407-2627

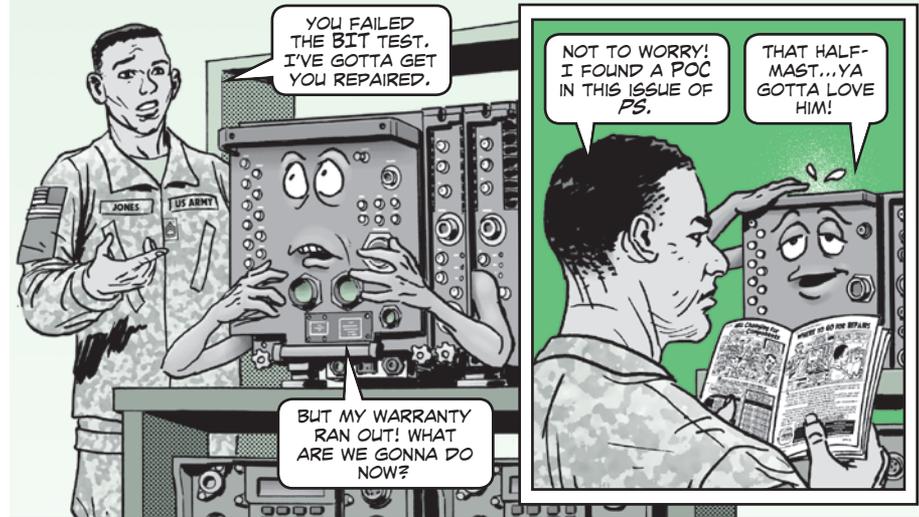
ALL OTHER COMPONENTS WILL KEEP THE MEL PERCENTAGE AS LISTED IN TB 43-0002-11. THAT INCLUDES **THESE COMPONENTS...**

Component	NSN
RT-1523	5820-01-234-8093
RT-1523A	5820-01-318-7990
RT-1523B	5820-01-365-2725
RT-1523C	5820-01-363-6929
RT-1523D	5820-01-410-8981
AM-7239	5895-01-188-8819
AM-7239A	5895-01-304-8389
AM-7239B	5895-01-334-3164
AM-7239C	5895-01-421-0093
AM-7239D	5895-01-422-8781

QUESTIONS?

CONTACT CECOM'S DAVID YANOSIK AT DSN 648-6232, (443) 395-6232, OR BY EMAIL: david.w.yanosik.civ@mail.mil

WHERE TO GO FOR REPAIRS



The warranty for the Joint Tactical Terminal-Senior's (JTT-SR) legacy radio receiver, NSN 5895-01-468-8221, and upgraded radio receiver, NSN 5820-01-584-4467, ran out in Dec 14. So how do you get your JTT-SR repaired?

If you have a legacy receiver that fails the built-in test (BIT) for single board computers (SBCs), contact Jeffrey Seeley at (443) 861-2458, (757) 303-7691 or email:

jeffrey.r.seeley.ctr@mail.mil

He has information on parts availability and replacement SBCs. Just remember to provide the software version running on your failing receiver.

To get a new or repaired JTT-SR, you'll need to order through the Army supply system. You'll receive full credit for your turn in if the items are received within 60 days. The old receiver will be repaired and returned to the supply system as a spare for future orders.

IF YOU DON'T HAVE TURN-IN ACCESS THROUGH SARSS, CONTACT ONE OF THESE JTT-SR SPECIALISTS FOR HELP...

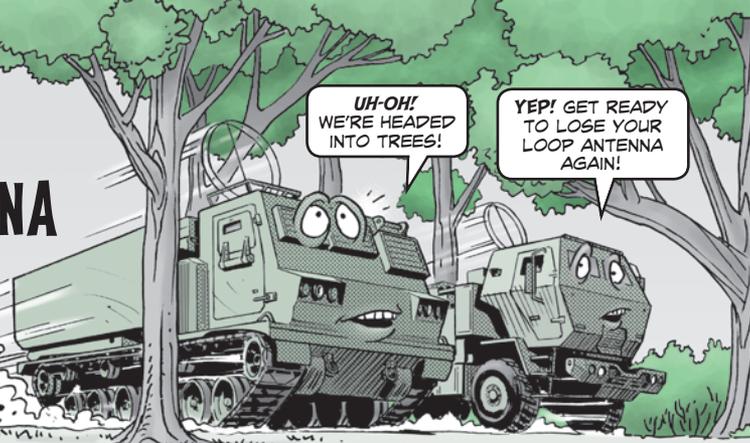


Dana Chatman
Logistics Manager
(443) 861-2968
or email:
dana.n.chatman2.civ@mail.mil

Brad Wescott
Inventory Management Specialist
(443) 861-2950
or email:
brad.l.wescott.civ@mail.mil

For software support, contact the CECOM LCMC help desk at (443) 861-3972.

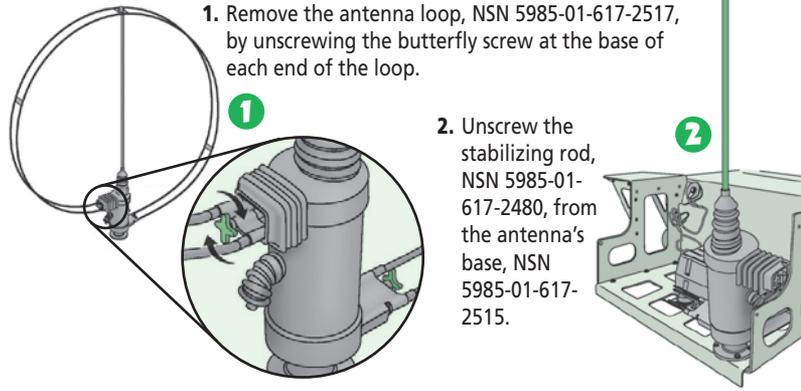
KEEP ANTENNA IN THE LOOP



The AS-4701/VRC loop antenna unit, NSN 5985-01-590-8364 (PN RF-3134-AT003), provides excellent long-range communications in the field for the M142 HIMARS, M270A1 MLRS and M1068-series command post carrier. Well, at least it does until you drive under a low-hanging tree limb that breaks it.

That's happening way too often. But you can prevent that damage with two different methods:

Method 1: Remove and stow the antenna before your vehicle goes on the move. Then reinstall the antenna once you've reached the field site. Here's how:



1. Remove the antenna loop, NSN 5985-01-617-2517, by unscrewing the butterfly screw at the base of each end of the loop.

2. Unscrew the stabilizing rod, NSN 5985-01-617-2480, from the antenna's base, NSN 5985-01-617-2515.

Method 2: Remove and stow the stabilizing rod, then use a piece of cord to tie back the antenna. That keeps the antenna out of the way of low-lying objects.

Either method only takes about five minutes to do and reinstallation is just as fast. It's definitely time well spent since a new loop antenna costs almost \$3,000. Damage the entire unit and it'll set you back a cool \$18,000!

MCPS Being Put Out to Pasture



If your unit is still using the old modular command post shelter (MCPS), NSN 8340-01-334-7529 (tan) or NSN 8340-01-323-2454 (green), you already know the problems. Age, connection problems, leaks, long setup and takedown times and no electromagnetic interference (EMI) protection are just a few of the headaches.

That's why units can now replace the MCPS with the modular general tent. This new tent has many benefits over the MCPS, including:

- Quick 15-minute setup and takedown time.
- Easy mating to TMS-medium, TMS-large, rigid wall shelter vans, armored multipurpose vehicle (AMPV) mission command carriers, and WIN-T satellite transportable terminals (STTs).
- Reduction in mating connection problems and air gaps.
- Addition of external/internal EMI shielding material.

The new tents are available in tan or green and with or without EMI shielding. They are authorized by CTA 50-909 under SLIN C40496 or NSLIN WF4029 and have been tested at the Aberdeen Test Center at Aberdeen Proving Ground, MD.

NSNs haven't been assigned yet, so you'll need to order on a DD Form 1348-6 from RIC SMS using the part number and CAGE 0WFM3.

Here's the info you need:

Color	EMI Shielding?	PN	Cost
Tan	No	SH202-001T	\$5,100
Tan	Yes	SH202-003T	\$7,795
Green	No	SH202-001G	\$4,975
Green	Yes	SH202-003G	\$7,795

Questions? Contact Jerry Harper, PM WIN-T, at DSN 648-8340, (443) 395-8340 or by email: jerry.k.harper.civ@mail.mil



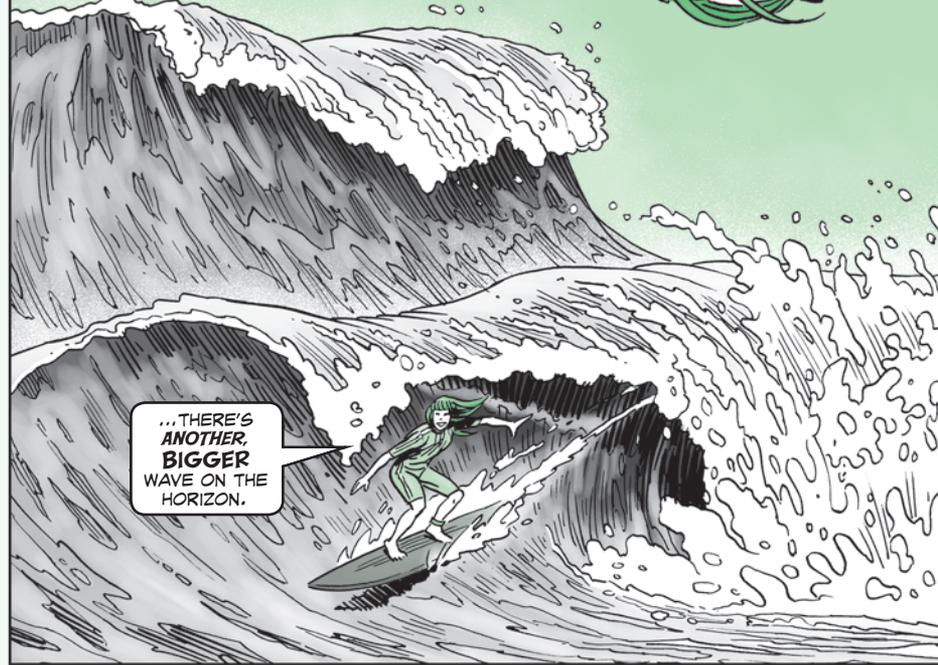
Scan these articles on:

- GCSS-Army Wave 2 fielding
- Go to TULSA for TACOM's safety and maintenance messages
- MSD maintenance tips

VIE for Clean Data to Surf GCSS-Army Wave 2



JUST WHEN YOU THOUGHT THE **TURBULENCE** FROM GLOBAL COMBAT SUPPORT SYSTEM-ARMY (GCSS-ARMY) WAVE 1 WAS SETTLING DOWN...



...THERE'S **ANOTHER, BIGGER** WAVE ON THE HORIZON.

GCSS-Army Wave 2 is fielding across the Army from 1QFY15 through 4QFY17. It will impact most PS readers.

The effects of this wave may feel more like an earthquake at the unit level. That's because major changes rolling in with Wave 2 change the way day-to-day business is done.

Right now, many units use the Property Book Unit Supply Enhanced (PBUSE) and Standard Army Maintenance System-Enhanced (SAMS-E).

Wave 2 sweeps PBUSE and SAMS-E away, replacing them with a single, web-based solution. By the time it's fully deployed, GCSS-Army will replace all legacy maintenance, unit supply, property book and finance and materiel management systems.



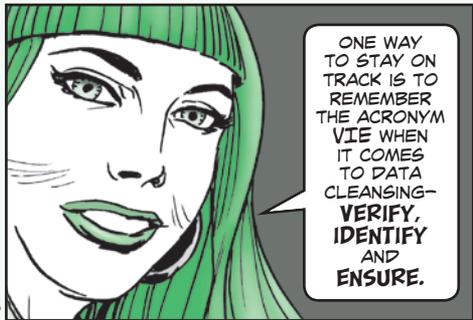


THE GOOD NEWS IS THAT WAVE 2 STREAMLINES RECORD MANAGEMENT AND IMPROVES CONTROL PROCEDURES FOR LATERAL TRANSFERS, RESET INDUCTION AND OTHER EQUIPMENT TRANSACTIONS.

IT ALSO INCREASES ACCOUNTABILITY AND VISIBILITY OF REPAIR PARTS AND SUPPLIES BY SHOWING "REAL TIME DATA" TO CUSTOMERS.

But successful Wave 2 migration depends on a foundation of clean data. In order to minimize data conversion errors, units must ensure their data is clean prior to migration.

As Wave 2 crests on the horizon, here are the steps units should take now to make sure this GCSS-Army wave rolls over them as smoothly as possible.



ONE WAY TO STAY ON TRACK IS TO REMEMBER THE ACRONYM VIE WHEN IT COMES TO DATA CLEANSING-
VERIFY, IDENTIFY AND ENSURE.

VIE for Clean Data



VERIFY THAT...

- Army Materiel Status System (AMSS) authorizations in SAMS-E match authorized and on-hand quantities in PBUSE.
- all Equipment Readiness Code(s) (ERCs) in SAMS-E match unit MTOE authorizations.
- equipment service due date data is accurate. Correct any past due services and update SAMS-E.
- any equipment reported as non-mission capable is accurate.
- the latest version of the Maintenance Master Data File (M MDF) is loaded in SAMS-E.
- all reportable equipment requiring scheduled services has been added to SAMS-E, IAW Appendix B in AR 700-138, *Army Logistics Readiness and Sustainability* (Feb 04).
- equipment operator licenses are up- to-date in SAMS-E.
- any items on the shop supply list identified as bench stock meet the requirements IAW Paragraph 2-24 in AR 710-2, *Supply Policy Below the National Level* (Mar 08).
- the "Parts Received Not Installed Report" is accurate.
- all reportable NSNs, serial numbers and registration numbers in SAMS-E have been reconciled with PBUSE. Correct any discrepancies.



IDENTIFY...

- any equipment fault(s) without valid part requisitions or work orders, and update as required.
- all overdue dispatches that have not been closed out in SAMS-E. Correct as necessary.



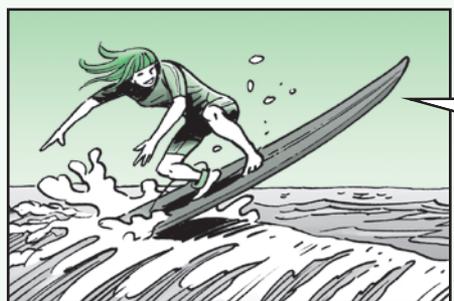
ENSURE THAT...

- all non-standard items are registered.
- all SAMS-E equipment is either on the property book or on the unit supply hand receipt.
- all miles or hours for usage-tracked equipment are updated in SAMS-E.
- all shop stock items have unique locations. Correct any NIINs with duplicate locations or location of "MANY."
- all equipment in SAMS-E has the correct year of manufacturer date. Visually verify information on equipment data plates.



FOR MORE INFORMATION OR TO CHECK WHEN YOUR UNIT IS SCHEDULED FOR WAVE 2 FIELDING...

...VISIT:
<https://gcss.army.mil/>



THE LOGISTICS SUPPORT ACTIVITY'S (LOGSA) ENTERPRISE DATA MANAGEMENT OFFICE (EDMO) ALSO OFFERS DATA INTEGRITY REPORTS TO ASSIST UNITS. AVAILABLE KEY REPORTS INCLUDE...

- Inactive UICs with Assets on Hand
- INS Code Mismatch
- UICs with Open DODAACs
- Asset Mismatch PBUSE SN/REG Numbers
- Inactivated DRRS-A UICs in PBUSE

Data integrity reports are available on the 1st and 20th of each month. To access the EDMO portal, follow the instructions at:

<https://edmo.logsa.army.mil/Login.aspx>

For EDMO questions or help, email:

usarmy.redstone.logsa.list.edmo-gcss-army-team@mail.mil



TULSA's Got You Covered



LOOKING FOR SAFETY OR MAINTENANCE MESSAGES FOR TACOM LCMC-MANAGED EQUIPMENT?

ALL YOU HAVE TO DO IS TROT ON OVER TO THE TACOM-UNIQUE LOGISTICS SUPPORT APPLICATIONS (TULSA) WEBSITE AT: <https://tulsa.tacom.army.mil>

ONCE YOU'RE IN, GET MAINTENANCE MESSAGES BY CLICKING MAINTENANCE MESSAGES IN THE LEFT-HAND COLUMN. FIND SAFETY MESSAGES BY CLICKING SAFETY FIRST IN THE SAME COLUMN.

On Maintenance Home Page, enter equipment name in search field to pull up messages

Once equipment search is done, scroll through maintenance message results

Repeat action on Safety First Home Page by entering equipment name in search field

Again, when equipment search is done, you can view list of specific safety messages

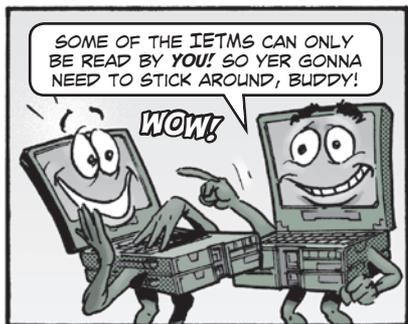
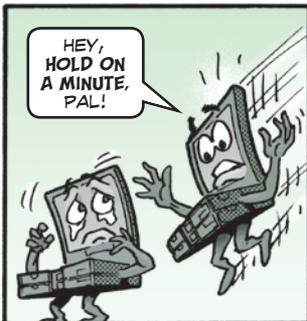
If you're looking for maintenance or safety messages on specific equipment, type the equipment name in the search field on the main page. Scroll through the results and click on the messages you want.

You can even get future messages emailed to you. Look for the E-Mail Subscriptions link in the navigation bar on both the maintenance and safety messages pages.

If you can't find a specific safety or maintenance message that you need, email your help request to:

usarmy.detroit.tacom.mbx.ilsc-safety-of-use-mailbox@mail.mil

Help Your MSD Help You!

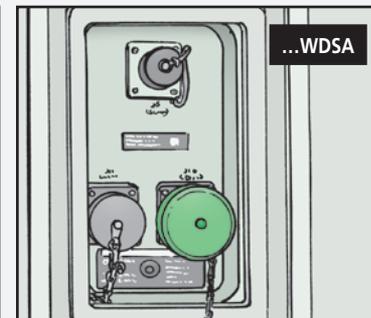
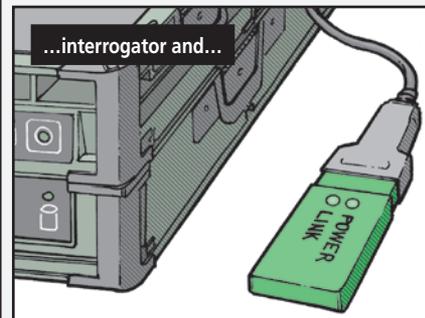


Dear Editor,

Part of my job at Ft Sill is helping units keep their Maintenance Support Devices (MSDs) in top shape. Here are a few things to remember about MSDs:

- Don't get rid of MSD version 2 (V2) when you get the new version 3. Unfortunately, some IETMs have not kept up with MSD technology. There are still IETMs that will work only with MSD V2. If you've turned in your V2, you're up that famous creek without a paddle. You can find a list of all the IETMs that do or don't work with V3 at: <https://msd.us.army.mil>
- The USB interrogator that is part of the smart wireless internal combustion engine (SWICE) may need a little communication help with the wireless diagnostic sensor-analog (WDSA). The first interrogators were green and the later interrogators are black. Certain MSD programming was defaulted to the green version. Here's how to change to the black version:
 - Click on DS Test Set Selector from the MSD desktop.
 - Change to Spiral 3 (black case).
 - Click Save.
 - Click on the diagnostics software icon.
 - You should get a list of around 25 vehicles. Click on the vehicle you'll be working on. If the hookup was successful, you will get a green light on both the interrogator and the WDSA.

If fix is successful, you'll get green light on both...



Repairmen should learn how to use the MSD for diagnostics. It makes troubleshooting a lot easier.

Richard Stotler
Vencore
Ft Sill, OK

Editor's note: Excellent tips, Richard. Remember when you get the MSD V3 to make sure it has EMS NG viewer version 2.1.9 and EMS NG autonomous diagnostic manager (ADM) version 3.10.4. If your MSD doesn't have it, download it at:

<https://www.us.army.mil/suite/files/26121198>

If you have any problems, call the help desk at (877) 564-1137 or email:

APATS@redstone.army.mil

Repairmen, your MSD can help you. Don't ignore it.

★ Connie's POST SCRIPTS ★



HMMWV Brake Fluid

THE ONLY APPROVED BRAKE FLUID FOR YOUR HMMWV'S MASTER CYLINDER IS **SILICONE** BRAKE FLUID (BFS), NSN 9150-01-102-9455. **NEVER** USE HYDRAULIC OR TRANSMISSION FLUID IN ITS PLACE.

AND **DON'T** CONFUSE THE MASTER CYLINDER WITH THE POWER STEERING/BRAKE BOOSTER RESERVOIR. THE DEXRON USED FOR POWER STEERING WILL SWELL SEALS IN THE MASTER CYLINDER AND LOCK UP YOUR BRAKES.

CRUSH PROOF DRIP PANS

Crush proof drip pans are really handy for preventing spills around the motor pool.

Order them with these NSNs:

NSN 4940-	Size
01-490-2455	3-gal
01-490-2463	6 1/2-gal
01-490-2470	15-gal

CONTACTING ARMY ENVIRONMENTAL COMMAND

An alert reader discovered that a phone number printed in multiple Army pubs is wrong. The toll-free number listed for the "Army Environmental Hotline" will get you a vacation pitch instead. The correct number to reach the Army Environmental Command is (855) 846-3940. Or email: usarmy.jbsa.aec.mbx@mail.mil

New AESD-W Email

The Army Enterprise Service Desk-Worldwide (AESD-W) has a new email address for support: army.esd-w.support@mail.mil

AR 56-4 Revised

A major revision to AR 56-4, *Distribution of Materiel and Distribution Platform Management*, went into effect in October 2014. It covers container policy and registration. Download the pub at: http://www.apd.army.mil/pdf/files/r56_4.pdf

PARTS BAGS

Self-sealing plastic bags are a good way to store small parts and hardware. Order what you need with these NSNs:

Size (in inches)	NSN 8105-	Qty
4x4	00-837-7753	1,000
6x6	00-837-7754	1,000
8x8	00-837-7755	1,000
11x10 1/2	00-837-7756	500
12x12	00-837-7757	500

MaxxPro Dash OGPK Hatch Seal

An improved rubber seal is available for the hatch on the MaxxPro Dash's objective gunner protection kit (OGPK) when the vehicle is upgraded to the CROWS split hatch configuration. The new seal comes with NSN 5330-01-621-8912. Make a note until the NSN is added to the TM 9-2355-324-series parts manual.

M24 Binoculars NSN Corrections

Two NSNs were reversed in the M24 binoculars' TM 9-1240-407-13&P. On WP 0017-3 and -4, the NSN for the eyepiece dust cover is listed as NSN 6650-01-589-0551 and the NSN for the objective lens cover as NSN 6650-01-589-0552. Switch those along with their part numbers. This will be corrected in the next change to the TM.

M200A1 Semitrailer Landing Leg

Get a new landing leg assist for your M200A1 semitrailer with NSN 2590-01-633-8466. It will be added to the Additional Authorization List (AAL) in WP 0119 of TM 9-2330-205-13&P at the next update.

M915 Coolant Filter Kit

Get a new coolant filter kit for your M915-series truck with NSN 2940-01-184-1877. The filter keeps the cooling system clean and helps prevent corrosion. Replacement filters come with NSN 4330-00-274-4712.

TOOL QUESTION?

Got a repair part, TM or general maintenance question about sets, kits, outfits or tools (SKOT)? Get an answer from the equipment specialists at TACOM LCMC by sending an email to: usarmy.detroit.tacom.mbx.ilsc-group-actions@mail.mil

GCSS-Army Reminder

Remember to check the GCSS-Army website for alerts, updated fielding and training schedules and other important info. Visit: <https://gcss.army.mil/>
Or sign up to get automatic notifications at: <https://gcss.army.mil/Support/register.aspx>

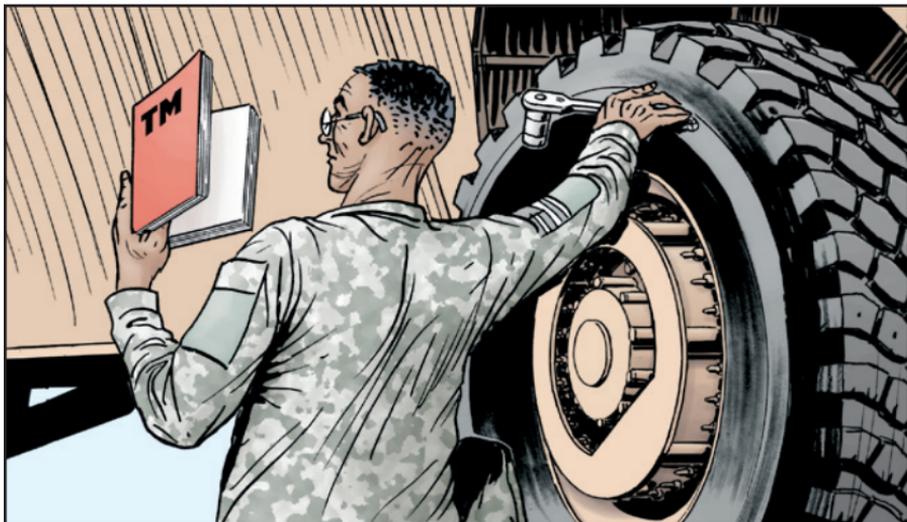
TIRE LUBE NSNs

Never use oil or grease to mount a tire. Petroleum-based products will deteriorate rubber. Instead, use a premixed tire lube with a vegetable oil base. Get one gallon of the lube with NSN 2640-00-256-5527. Five gallons comes with NSN 2640-00-256-5529.

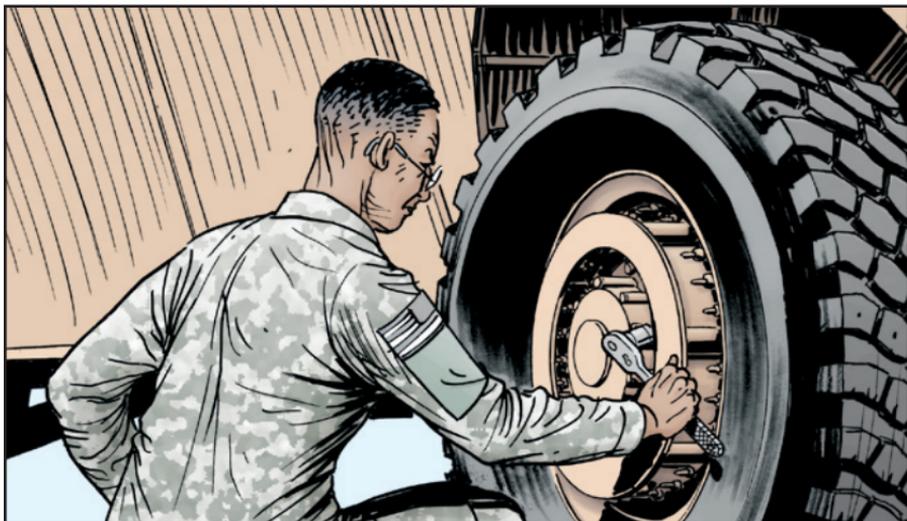
DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 340312, requirements for TB 43-PS-Series.

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